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basis  
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land use/circulation

*Element*

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SAN JOAQUIN COUNTY GENERAL PLAN  
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A portion of THE SAN JOAQUIN COUNTY GENERAL PLAN

ADOPTED BY THE BOARD OF SUPERVISORS, APRIL 13, 1976



## **board of supervisors**

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Reprinted July, 1980



This document is a portion of the Land Use/Circulation Element of the San Joaquin County General Plan to 1995. The entire Land Use/Circulation Element consists of the following (available separately):

- this text
- policy brochure entitled Policies for Development
- plan map for the County
- plan maps for Urban and Rural Centers showing specific land uses and circulation patterns.

Area plan maps for Urban and Rural Centers

Stockton\_(including French Camp)  
Lodi \_\_\_\_ (including Acampo, Coopers  
            Corner, and Henderson Village)  
Tracy\_\_\_\_ (including Banta),  
Manteca

Ripon  
Escalon  
Lathrop  
Linden  
Lockeford  
Thornton

Victor  
Clements  
Farmington  
Simms Station  
Vernalis







STATUS OF THE GENERAL PLAN TO 1995

This document was adopted in 1976, and much of the background material was collected between 1970 and 1974. Therefore, some of the data and maps may have changed, and they should be used with caution.

Despite the above limitation, the County has seen no major changes which at this time warrant a total reassessment of the Land Use/Circulation Element. A land consumption study is now in progress, but the study is not expected to produce results inconsistent with the Plan's projections.

Population projections used in the Plan seem to have been high, and the area shown for development on the Plan Maps may not be needed until 2000 rather than by 1995. The 1980 Census will provide a basis for new projections and for the revision of the Plan.

As part of the continuing planning in San Joaquin County, various General Plan Elements, plan amendments, and rural studies have been completed since the adoption of the Land Use/Circulation Element to 1995.

New General Plan Elements

Safety/Seismic Safety Element, adopted 11/30/78  
Scenic Highway Element, adopted 11/30/78  
Noise Element, adopted 11/30/78  
Housing Element, revision to be adopted in 1980  
Recreation Element, revision in progress

Amendments to the Land Use/Circulation Element

Community Plans:

Lockeford Community Plan to 2000

Other Amendments:

Amendments considered = 44

Amendments adopted = 19 changes to Plan Maps

Urban Centers

5 changes from one urban use to another  
3 expansions of urban centers



#### Rural Residential Areas

2 added  
3 expanded  
1 deleted

#### Highway Service Areas

2 added  
2 expanded  
1 deleted

#### Rural Area Studies

Manteca South	1976
Micke Grove	1977
Live Oak	1979
Elliott	1979

#### IMPLEMENTATION OF THE PLAN

The plan is being used in the review of private and public development projects and other actions and decisions.

#### Major Public Actions

- Rezoning of planned agricultural land to more protective agricultural zones. Between 1975 and 1980 the amount of agricultural zoning with 40 acre minimums (or higher) increased from approximately 120,000 acres to 565,000 acres.
- Revision of the Subdivision Ordinance.
- Revision of the Zoning Ordinance to reflect revised Plan policies.
- Encoding of Plan's land use designations on the County's land use file for analysis of development.



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## PREFACE





## PREFACE

The intent of the general plan is to serve as a guide for the comprehensive long-range development of an area. It is usually expressed in terms of a written text containing policies in the form of goals, objectives, and principles, accompanied by a map or series of maps.

The first general plan for San Joaquin County was adopted by the Board of Supervisors in 1963. The 1963 document was essentially a Land Use/Circulation Element. Later other elements were added to the Plan, all parts of which become official County policy. The 1963 element was revised in 1969.

### REASONS FOR PLANNING

All of us have recognized (often too late) the reasons to plan ahead in our private lives, in business, or in government. The results of no planning are often too obvious.

In terms of physical land use, the reasons for planning can be summarized as the following:

- orderly development
- consistent decision-making
- development direction
- establishment of priorities and emphasis
- opportunity for community participation at an early stage
- judicious allocation of resources and energies
- recognition of opportunities.
- examination of social and economic consequences to individuals' health and welfare

The State of California recognizes the need to plan and specifically addresses planning in the Government Code:

- a general plan is required (§65300)
- contents of a plan are specified (§65302)
- definite elements of a plan are mandated (§65302)
- zoning must be consistent with the plan (§65860)
- building permits and subdivisions cannot be approved unless they are compatible with the open space element (§65567)
- a subdivision must be found to be consistent with the general plan before approval (§66473.5)
- all public construction, all acquisition, or land abandonment must be reviewed by the Planning Commission for its conformity with the general plan (§65402)
- the Planning Commission must regularly review the capital improvement program for its conformity with the general plan (§65401, §65101c)
- no element can be amended more than three times a year (§65361)

## ELEMENTS OF THE GENERAL PLAN

The Government Code of the State of California, Sections 65300-65307, specifies the scope of the General Plan. Within the last few years, the number of State-mandated elements of the Plan has increased markedly. Figure 1 indicates the Plan Elements and the status of each element in San Joaquin County.

FIGURE 1

### ELEMENTS OF THE GENERAL PLAN

Provisions of State Law Government Code Sections 65302-3	Status in San Joaquin County
<u>Mandatory Elements</u>	
Land Use Element Circulation Element	Land Use/Circulation Element adopted 1963
Housing Element	Phase I - adopted 1970 Phase II - in progress
Open Space Element Conservation Element	Open Space/Conservation Element adopted 1973
Seismic Safety Element	In progress
Noise Element	In progress
Scenic Highway Element	In progress
Safety Element	In progress
<u>Optional Elements</u>	
Recreation Element	Adopted 1966
Transportation Element	Airport Segment adopted 1970
Public Buildings Element	Library Segment adopted 1965, revision in progress

The Land Use/Circulation Element remains the most important element of the General Plan in the sense that it incorporates information and policies from the more specialized elements, and relates all the elements to one another. It utilizes data and policies in each element to develop comprehensive policies relating land uses and circulation. Land use considerations are inseparable from circulation (provision for the movement of people and goods) and are therefore treated here in a combined element.



## THE REVISED LAND USE/CIRCULATION ELEMENT

The revised element retains major similarity to that adopted in 1969. It continues to support the urban/rural concept, the protection of agricultural areas, the encouragement of economic development, the separation between urban centers, and the discontinuance of urban sprawl.

The new element has been developed from a stronger information base than was the General Plan to 1990. The problems of the County are more defined. At the same time, the methods of dealing with the problems are becoming more refined, specific, and interrelated.

The major changes from the 1969 element include:

- greater consideration to the provision of services
- reduction in the population projections due to lower birth rates and migration into the State resulting in less area planned for urban development
- fewer freeways expected because of lower traffic projections and more financial constraints
- recognition of non-agricultural development in rural areas
- greater specificity in designating areas for each land use, due in part to more detailed study and in part to State requirements that zoning be consistent with the plan
- refinement of each land use designation with some changes in designations and with additional policies

## THE PLANNING PROCESS

The General Plan is the result of a process, a process which continues after adoption of the Plan. The planning process involves, among other persons, the professional planners and other professional personnel, the Planning Commission, the Board of Supervisors, and most importantly the general public. The actual plan results from an evolutionary process, seldom occurring in an even progression, but consisting of the following at various times in the process: data collection, analysis, and interpretation; projections of future conditions; determinations of problem areas; analysis of existing plans and policies (written and unwritten); existing and future community needs and desires; social, economical and political considerations; incorporation of communities' ideas, needs and desires; establishment of goals, objectives, and principles; determination of assumptions on which the plan will be based; interactions with the community, citizens committee, governmental offices at all levels, Planning Commission and Board of Supervisors.

The actual process involved in the revision of the County's Land Use/Circulation Element is described in detail in the Appendix.





## INTRODUCTION





## INTRODUCTION

San Joaquin County is centrally located in the 450 mile-long Central Valley of California, and covers approximately 1,440 square miles (Map 1). It is within two hours driving distance of the San Francisco Bay, Sacramento, Lake Tahoe, Fresno and Monterey Bay areas.

The entire Central Valley is geographically divided into the Sacramento Valley and the San Joaquin Valley (Map 1) with the dividing line variously defined by meteorological, geological, statistical and political conditions. San Joaquin County is most often considered the northern-most San Joaquin Valley County.

The County is a top producer of a variety of agricultural products shipped extensively throughout the United States and increasingly to foreign markets. The County's importance as a local, State and national distribution and shipment center of a variety of products is growing because of location and the availability of good highway, rail, air and water transportation systems.

One of the County's major physical features is about 40% of the California Delta, which is a rich agricultural area, as well as a Statewide recreational attraction (6).

### HISTORICAL SETTING

Two hundred years ago, San Joaquin County, like most of the Central Valley, was inhabited primarily by hunting and gathering Indian tribes, who lived along rivers and streams for the most part. At that time, the land was covered with grasses and large groves of valley oaks, while wild grapes and black walnut trees, among other species, lined the waterways. The Delta, where the Valley streams all converged, was like a swamp with the decaying tules and other vegetation which has formed the rich peat soils.

The area, plentiful in beaver and other fur-bearing animals attracted trappers, including the Hudson Bay Company to the French Camp area in the early 19th Century. In the late 1840's gold was discovered and the economic structure of the area began to change rapidly. Tuleburg, which is now Stockton, became the supply center for the southern gold fields to the east, and formed ties between the Mother Lode communities and San Joaquin County which continue today. By 1850, Captain Weber, Stockton's founder, had a precise physical plan for development of a 958 acre city.

There were three main reasons for the rapid early growth of Tuleburg. First, the gold mining activities required a supply center; second, Tuleburg was on the route between San Jose and Sacramento, and provided a stopover point for travelers; and third, the area was connected to San Francisco Bay by the San Joaquin River, providing a means of water transportation for freight and passengers, mainly for trans-shipment to the southern mine areas.

The flat nature of the land, with easy access to water, also stimulated the early development of the cattle and hide export industries. Other industries in the area at the time included lumber and flour milling, liquor, soap and shoes.

# PHYSICAL SETTING of SAN JOAQUIN COUNTY



-----> SUMMER WINDFLOW PATTERN  
 ← WINTER WINDFLOW PATTERN

BASE MAP BY ERWIN RAISZ

MAP NO. I

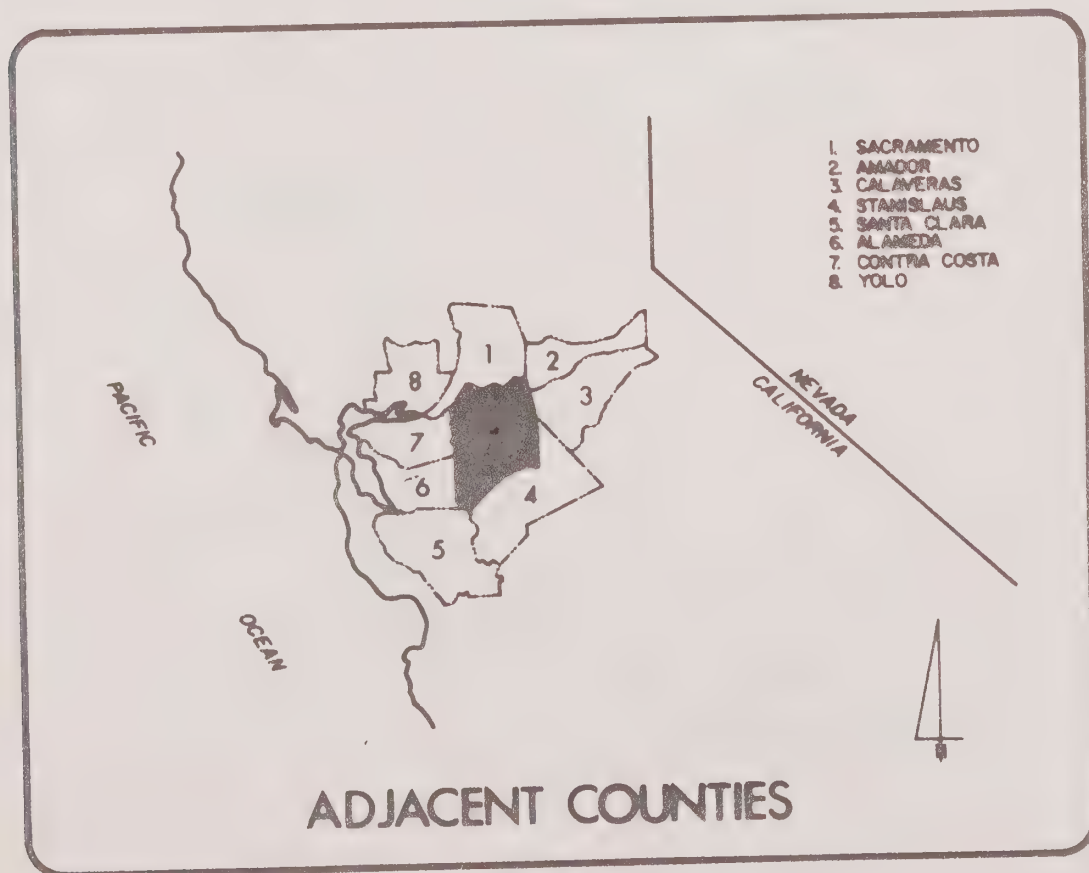


By the 1860's, agriculture and related industries had become the County's dominant activity; reclamation of portions of the Delta for agriculture were underway; and nearly all of the County's settlements and present communities had been established. Lodi and Tracy became stable communities by 1880, after railroads were constructed. Around the turn of the century, clay, gold, coal and manganese were being mined locally and bricks were commercially produced in the area southwest of Tracy.

By the 1930's most of the Delta was entirely reclaimed and the Stockton Deep-water Channel deepened to accommodate ocean-going vessels. Since that time, and the emergence of the automobile, many of the County's original towns have lost their earlier significance and there is little evidence of their previous settlement. Those population centers that continue are recognized and described in the Urban-Rural Structure, in Chapter III.

### REGIONAL SETTING

The County is bordered by bay, mountain and valley counties as shown on Map 2, and is most like neighboring valley counties because of topography and economy. However, the regional influence of Stockton, and to some extent Lodi, is strongest in the rural foothill areas and towns such as Jackson, San Andreas and Angels Camp. Galt and Byron, and to a lesser degree Isleton and Rio Vista, are also within the County's area of influence. Galt, Oakdale and Riverbank act as intermediate centers for small communities and rural areas in the northern, and southern portions of San Joaquin County, while Sacramento and



MAP NO. 2

Modesto have influence in these areas as regional centers. Growth and development in the County, and planning for it, is influenced by what occurs, and is planned to occur, in surrounding areas, as well as at the State and National levels. More importantly, these same areas are very much influenced by San Joaquin County and its future.

The development and actions of one jurisdiction have a variety of effects on neighboring jurisdictions. Therefore, to help ensure the individuality of a specific area, and non-duplication of effort, it is important that mutual goals be defined and problems addressed for the total affected area.

An area may be defined for physical, social, political or economic reasons, and boundaries accordingly established. Generally, once an area is defined, a representative governmental or quasi-governmental agency or organization is established and sets about examining common interests and planning in a coordinated manner. For example, San Joaquin County is in the Central Valley Regional Water Quality Control Basin; the Sacramento River, California Delta, and San Joaquin River drainage basins; and the San Joaquin Valley Air Basin, both logical regions based on natural drainage or air circulation patterns. The County is also a member of the Delta Advisory Planning Council (DAPC) and the Northern San Joaquin Comprehensive Health Organization, as well as having other regional affiliations.

The most important regional organization is the San Joaquin County Council of Governments (COG), which acts as an overall Countywide planning, advisory and review agency for its member jurisdictions. Under a joint powers agreement, the COG is composed of the County and the six incorporated cities within the County.



## *Chapter I*

# **THE PHYSICAL ENVIRONMENT**





## THE PHYSICAL ENVIRONMENT

The physical environment of the County, described in this chapter, has been a major determinant of historical settlement patterns. Although much of the County's natural environment has been altered by man, the forces of nature continue to influence human activities and thus affect land use within the County. This inter-relationship is discussed in succeeding chapters.

### TOPOGRAPHY

The area of San Joaquin County includes portions of three recognized geomorphic provinces: The Sierra Nevada, Coast Ranges and the Great Valley as illustrated on Map 3. The rivers, streams and creeks draining these areas are illustrated on Map 4.

That small portion of the Sierra Nevada Province in San Joaquin County is primarily grass-covered rolling foothills, which approach the mountains in adjoining counties.

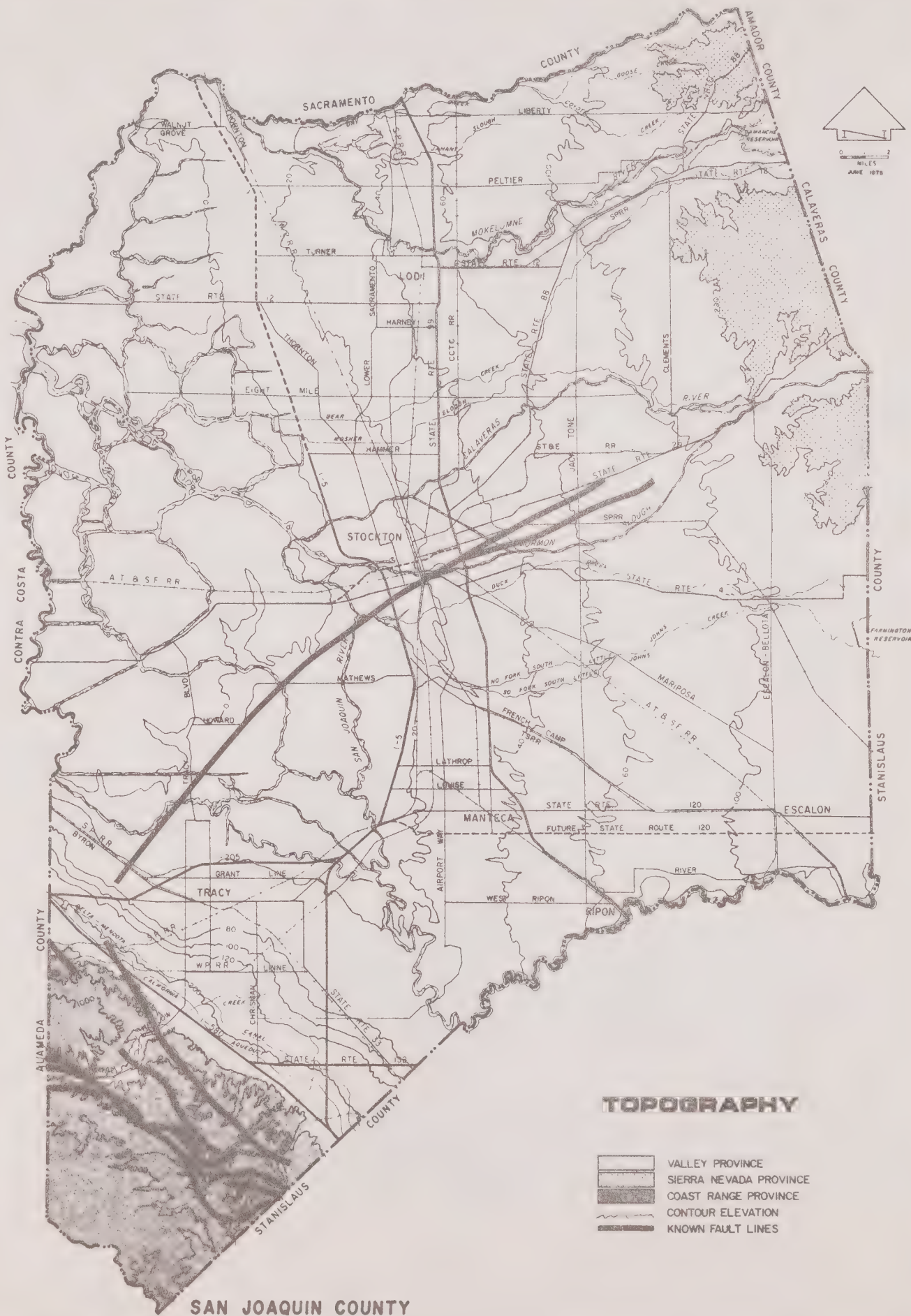
The unaltered landscapes with rock outcroppings, steep slopes and deep creek beds of the Coast Range Province, make it the most physically interesting area in the County. Most of the County's past mining activity occurred in this area, which is now the location of an Atomic Energy Commission test site and a private recreational motorcycle park. The greatest evidence of seismic activity in the County is found in this area. Most of the area is used for livestock grazing.

That portion of the Great Valley Province within San Joaquin County, consists of two general sections: the upland valley and the Delta. All of the County's major cities and communities are located in the upland valley area, which generally slopes from east to west, with sloping in the southwestern portion of the County from southwest to north, and northeast (Map 3). The remaining non-urban portion of this area has been greatly altered by levelling and grading for intensive agricultural use.

The Delta in San Joaquin County, most of which is below sea level, is generally west of Stockton and the route of Interstate 5 and north of Tracy and the route of Interstate 205. All types of irrigated crops are grown in the rich Delta peat soils, and the waterways are used extensively for recreation. Oxidation and wind erosion of the peat soils, and the inadequacy of the levee systems, are major problems in the Delta at the present time.

### SEISMIC ACTIVITY

Historically, very little seismic activity has occurred in San Joaquin County. Since 1881, there have been three minor earthquakes with epicenters approximately located in the area southeast of Linden, near the easternmost subsurface position of the questionably active buried Stockton Fault (Map 3). There is



SAN JOAQUIN COUNTY

San Joaquin County Planning Department

MAP NO. 3

10



evidence of active folding and faulting in the Coastal Range area of the County (Map 3).<sup>1</sup>

The major seismic hazard to San Joaquin County is the motion resulting from significant seismic disturbances on distant large fault systems, including the San Andreas, Calaveras, Hayward and Midland Faults. Subsidence;<sup>2</sup> liquefaction;<sup>3</sup> instability of foothill slopes, river and levee banks; and flooding<sup>4</sup> are the most likely direct problems to occur in San Joaquin County as a result of seismic activity; however, the type of earthquake movement which would cause these problems would most likely result from activity along the Stockton Fault.

The most serious threats to public safety are the secondary effects which can occur with even a slight earth motion. For example: falling objects; structural failure of old buildings; swinging doors; broken gas lines; fallen electrical lines; moving furniture, etc. New construction in the County must now conform with the Zone 3 requirements of the Uniform Building Code, which requires "earthquake resistant" construction measures.

Compared to other areas of California, the probability of earthquake induced damage is not seen as an obstacle to development in the County; however, all efforts should be made to minimize the threats.

## CLIMATE

Most of San Joaquin County enjoys warm, dry summers, with temperatures occasionally exceeding 100°F; and moderate, wet winters, with temperatures not uncommonly dropping to freezing or below. In general, summer temperatures are slightly lower in the central and northern areas of the County, than the southern areas and other Valley counties. The longest average growing season in the Central Valley (approximately 300 days between killing frosts) is found in San Joaquin County, and is the result of the moderating influence of ocean breezes.

San Joaquin County is located in the San Joaquin Valley Air Basin, which is generally divided from the Sacramento Basin by a fluctuating meteorological boundary. Predominant summer and winter windflow patterns are shown on Map 1. In summer, air enters the Valley through the Carquinez Strait, moving across the Delta, flowing into the two air basins. In winter, cold air drains off of the mountain and hill slopes into the Valley, causing air to flow towards a zone of convergence, usually over the Delta area, towards the ocean.

<sup>1</sup>A detailed discussion of the geology and seismic activity for the area can be found in the publications listed in the reference section. The County's Seismic Safety Element, to be completed later this year, will include a comprehensive presentation of the County's geology.

<sup>2</sup>Sinking of the ground in areas

<sup>3</sup>Areal soil movement and sinking when a water saturated cohesionless soil temporarily loses strength when subjected to dynamic forces.

<sup>4</sup>As a result of earthquake caused levee failure because of liquefaction, subsidence, or general slope instability, or upstream dam breakage.



Almost 75% of the County's average yearly rainfall occurs between December and March, while June, July and August are virtually dry. Rainfall varies from approximately 17 inches per year in Lodi to approximately 8 inches south of Tracy. Average yearly rainfall at Stockton is approximately 15 inches per year, and 12 inches at Ripon. Dense fog occurs throughout most of the County in the late autumn and early winter months, normally disappearing with rising daytime temperatures; however, under stagnant atmospheric conditions (usually in December and January) the fog may last for as long as 4 or 5 weeks, with only brief and temporary periods of clearing.

## NATURAL RESOURCES

### SOIL

Soils in San Joaquin County are an important natural resource, upon which the economy of the County is based.

Nearly all of the soil types found within the County are suitable for some form of agriculture. The alluvial fan, alluvial plain and basin soils are the most desirable, being capable of supporting the greatest variety of crops. They are followed by the terrace soils. The Delta peat soils are excellent for a variety of row crops but because of their organic nature, they are deteriorating rapidly with use. The peat soils are not stable, and are, therefore, not considered a good base for buildings or other permanent structures. The expansive basin clay soils, although good for agricultural production, present problems for structures, however, these problems can be alleviated by construction standards and on-site engineering. Foothill soils support grasses, used for dry grazing. A complete discussion of agricultural land is in Chapter VI.

The County's soils have been organized into eight major groups, listed in Figure 2. The distribution of the County's soils, by type shown on the chart, are shown on Map 5.

### EXTRACTIVE RESOURCES

At the present time, San Joaquin County's primary extractive resources are: natural gas and sand and gravel. Coal and clay were at one time extracted in the Corral Hollow area, and manganese has been mined in the southwestern portion of the County. Local creeks and rivers in the past were dredged for gold which is still obtained as a secondary product of gravel processing. Renewed mining of the latter materials is not expected during the planning period primarily because of the limited quantity and quality of the materials. There have also been peat soil removal operations in the Delta.

Natural Gas. The County's primary extractive resource (based on \$ value) is natural gas. In 1973 there were eight known fields with gas reserves and five depleted fields located almost entirely within San Joaquin County, and portions of three other producing fields (Map 6). In 1973 there were 127 producing gas





FIGURE 2

MAJOR SOIL GROUPS San Joaquin County		
Areas dominated by very deep, level to nearly level, poorly drained soils of the Delta		
Rx-Ed	Ryde-Egbert association	
sf-Ve	Staten-Venice association	
Areas dominated by very deep, nearly level soils of the alluvial plains.		
VA-CW	Valdez-Columbia association	
Hu	Honcut association	
Bs	Verrendos association	
Areas dominated by deep to very deep clay soils of basin and basin rims.		
Cm-Pp	Capay-Pescadero association	
Sb	Sacramento association	
sj-Lc	Stockton-Landlow association	
Areas dominated by moderately deep to very deep soils of nearly level to very gently sloping alluvial fans		
Cm-Rn	Capay-Rincon association	
Dp	Dinuba association	
Hd-Gx	Hanford-Greenfield Association	
sb	Sorrento association	
sb(g)	Sorrento association (gravelly phase)	
TD-Hd	Tujunga-Hanford association	
Wr	Wyman association	
Areas dominated by shallow nearly level to gently sloping deep soils of the low terraces.		
Mb-AB	Madera association, 0% to 5% slopes	
Rc-BC2	Ramona association, 2% to 9% slopes, eroded	
Si-Rc	San Joaquin-Ramona association	
Areas dominated by shallow to moderately deep gently to strongly sloping soils of the high terraces.		
Pm-Ri-BD2	Pentz-Redding-Raynor association, 2% to 15% slopes, eroded	
Ri-BD2	Redding association, 2% to 15% slopes, eroded	
Areas dominated by very shallow to shallow gently sloping to steep soils of the Sierra Nevada foothills.		
Pm-Tt-BE2	Pentz-Toomes-Inks association, 2% to 50% slopes, eroded	
Areas dominated by shallow to deep, moderately to very steep soils of the Coast Range.		
An-E	Altamont association, 15% to 30% slopes	
Lx-An-EF2	Linne-Altamont association, 15% to 50% slopes, eroded	
Vc-Pi-FG2	Vallecitos-Parrish-Gaviota association, 30% to 75% slopes, eroded	

Source: General Soil Map prepared for the San Joaquin County Council of Governments by the U.S.D.A. Soil Conservation Service and the Association of Bay Area Governments. March, 1967.

wells in the County. There are an unestimated number of abandoned and dry wells.

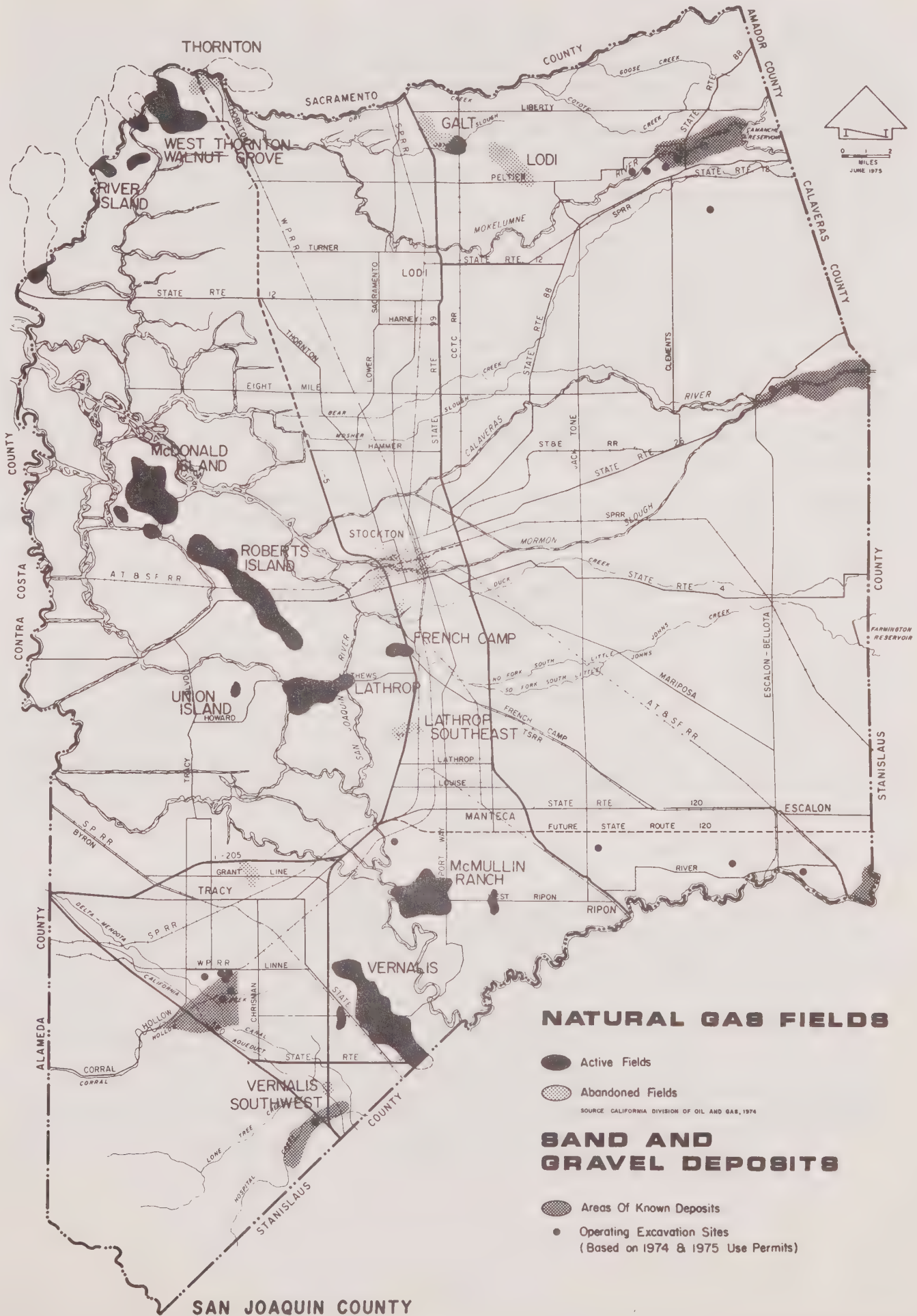
Natural gas extraction is not considered a major land use for planning purposes in the County because of the minimum land surface development (Mc Donald Island excepted). However, it is an important activity. The County derives income through taxes on producing wells, and the need for energy sources is increasing; therefore, it is necessary that the resource be conserved and possibilities of continued extraction protected. Natural gas production is a major land use over the Mc Donald Island Field, which is being used by Pacific Gas and Electric Company for natural gas storage. Nonagricultural surface uses at this site, are minimized by concentrating the equipment and wells in banks, and all transport is through underground piping.

Presently, gas well drilling is regulated by zoning ordinance and is permitted with an approved development plan or use permit, depending upon the area's General Plan designation. Applications are also subject to environmental assessment under the Environmental Quality Act. Excluding portions of the Vernalis, Galt and French Camp Fields, the County's known active gas fields are located beneath areas planned for continued agricultural use. Test and well drilling in all areas may increase as the demand for natural gas increases.

No known significant environmental problems with the exception of the Mc Donald Island well fire, have been encountered as a result of gas drilling and production in San Joaquin County. Blowouts and fires are a possibility in drilling any gas well. Major possible impacts of such occurrences include: damage to property and loss of reservoir energy; danger of human injury; contamination of ground or surface waters; conflagration hazards; and disruption of surface land uses. The severity of the impact depends upon land uses in the area. The greater the density of development the greater the damage. However, extreme precautions are taken and occurrences are very unlikely. Once a well is drilled there are few problems; therefore, their development in urban areas is not unlikely. Additional considerations relative to gas fields and extraction are leaks, wastewater and subsidence.

Sand and Gravel. Sand and gravel extraction and processing is an important San Joaquin County industry, and a major land use. Known sand and gravel deposit areas, and active legal excavation sites are shown on Map 6. The extent of these deposits is not known, as an inventory of this resource in the County has not been done. The most extensive excavation area is the Tracy Pits, located generally south and east of the Tracy Airport, in the Corral Hollow Creek alluvial fan (16). Dredge tailings along rivers and creeks are also a source of aggregate material. Land leveling permits and small borrow sites are not shown on the map. The County's newest excavation site was approved in 1974, south of Mokelumne River, east of Mackville Road. This floodplain area was in agricultural production at the time of permit approval. The remainder of the County's excavation sites have been continuously or periodically worked for many years (in some cases expansion area remained in agricultural production until time to excavate that area).





Excavation sites are a major land use in the County because: large land areas are occupied; landscapes are completely altered, affecting adjacent parcels; deposits are generally located in otherwise agricultural areas, and often the best floodplain soils overlay deposits; plants and processing equipment are industrial-type activities which represent an intrusion into the agricultural area; access is generally to highways via rural road systems, not designed or intended for industrial traffic; deposits are also located in areas where other land uses must be considered--wildlife habitat, scenic, recreational and historical areas, and aquatic habitat; and excavation activity is an industrial employer. Excavations are also a temporary land use in that once the resource is removed that site is no longer useful for excavation purposes (because of upstream diversions and dams, sand and gravel deposits are not readily renewed in this County). When this occurs the land is available for another use. Because of this temporary situation (in the case of borrow site it might be about one year and with quarry excavations up to 30 years), there is not a special excavation designation on the General Plan. A general plan designation or excavation zone are also precluded because of the necessity to evaluate each project independently in light of need, other landscape features and neighboring land uses. Known gravel deposits have been shown Conservation, as a means of protecting the most likely areas to be excavated from incompatible development.

The future use of excavation and borrow sites is dependent upon the planned use of the total area; in most cases a form of open space--recreational, conservation, or agricultural development. Because of the lack of topsoil, altered grades and soil composition, among others, some sites will not be suitable for agriculture, even though they may once have been very productive. Very often this presents a problem regarding General Plan conformity.

At the present time, excavation activity is regulated by a County ordinance and permit procedure. Each excavation is evaluated through the EIR and staff reporting processes at the time of application for permit or renewal. This includes public hearings and agency review. Usually an Environmental Impact Report (EIR) is required. Periodic inspections are made to ensure compliance with permit conditions. Although the ordinance now requires site rehabilitation and conservation of topsoil overburden, soil is long removed at most excavations and rehabilitation of abandoned pits is currently not required.

#### FLORA, FAUNA AND FISH

Vegetation (natural and Native), wildlife, fish and even insects are natural resources important in the maintenance of a balanced ecological cycle; and are of known educational, recreational, aesthetic and commercial value to the people of the State and County. As technology and knowledge increases, more and greater values are discovered.

A large portion of the County's native and natural vegetation has been removed for agricultural and urban uses; however, where permitted the vegetation has replaced itself along irrigation ditches, fence rows and on vacant parcels. The County's grasslands in the eastern and southwestern portions of the County are used extensively for livestock grazing; some of these areas being overgrazed.



The County's natural vegetation may be destroyed by the wildlife it supports if too many animals are in competition. It is more commonly destroyed or removed as the result of man's activities--urbanization, agriculture, exploitation of other resources, recreation and carelessness. Little native California vegetation remains in San Joaquin County. There are six endangered native plant species in the County at the present time, identified by the California Native Plant Society. They are: *Amsinckia grandiflora*, *Cirsium carassicaule*, *Feryngium racemosum*, *Juglans hindsii*, *Orcuttia greenei* and *Tropidocarpum capparideum* (19). The occurrences of mammals, reptiles and birds in the County correspond very closely to the vegetative communities and habitat areas. Agricultural land, particularly close to habitat areas, provides a food source for wildlife. Urban areas support predominantly populations of songbirds and rodents.

The most important vegetative community in the County is riparian habitat. This vegetative group contains a great variety of wildlife because of its food and habitat value, and assists fishery populations by providing shade during the hot summer months. The vegetation also harbors insects, valuable as a food source for fish. Much of this habitat has been removed for easier and cheaper levee maintenance. A great variety of vegetative species is found in the southwestern foothills, and occasional groves of Valley oaks remain in the County. However, those presently under private ownership could be removed at any time.

Endangered and threatened species of mammals, reptiles, birds and fish may be found within San Joaquin County (11).

FIGURE 3

ENDANGERED AND THREATENED SPECIES that may be found in San Joaquin County			
species		status	habitat
San Joaquin Kit Fox	mammal	endangered	southwestern foothills
Blunt-nosed leopard lizard	reptile	endangered	southwestern foothills
San Francisco garter snake	reptile	endangered	Delta
Giant garter snake	reptile	threatened	Delta/s.w. foothills
Alameda striped racer	reptile	threatened	Delta/s.w. foothills
Tule whitefronted goose	bird	endangered	Delta (winter)
Thicktail chub	fish	endangered	Delta waterways
Sacramento perch	fish	threatened	Delta waterways

The known habitats of the above species are not presently considered for urban development; however, changes in land use or agricultural practices may have an effect. Wildlife is not only threatened by illegal hunters, careless persons and natural predators, but is most affected by loss of habitat resulting from changes and conflicts in land use, or overuse of an area. Those species of wildlife considered detrimental to agriculture and other wildlife are subject to eradication programs (10). A listing of species common to the County is in the Conservation Element of the Council of Governments.

Fish populations supported in San Joaquin County waters are important recreationally and commercially as a food and by-product source. However, diversion from the County's rivers periodically results in water levels inadequate for the maintenance of a good productive fishery. The Department of Fish and Game maintains a steelhead hatchery and salmon spawning channels at the base of Camanche Dam.



Riparian habitat and a portion of southwestern foothill habitats are shown as Conservation on the Plan map. All of the County's waterways are also designated Conservation, which is discussed on page 99 . There are policies addressing the protection of waterways and associated resources, as well as policies which support programs for their conservation and enhancement.



*Chapter II*

**SOCIO-ECONOMIC OVERVIEW  
of SAN JOAQUIN COUNTY**





# SOCIO-ECONOMIC OVERVIEW of SAN JOAQUIN COUNTY

Included within this chapter are projections of population, housing, and employment for the County, which were prepared as part of the Community Development Program.<sup>1</sup> Also included is a summary of the Housing Element of the San Joaquin County Council of Governments which further examines housing needs in San Joaquin County (2).

## POPULATION

Essential to the revision of the Land Use/Circulation Element is the development of reasonable estimates of the future location, type, intensity, and extent of land uses. These estimates are based upon the anticipated population growth during the planning period. Future land uses are planned in relation to the number and needs of the people who will live in San Joaquin County and the manner in which they will distribute themselves throughout the County.

### POPULATION CHARACTERISTICS

During the 1960's, the total population of the County increased by 16 percent. However, various segments of the population increased at different rates, thereby resulting in changes in the composition of the population (2).

#### Ethnic Groups

While the White population (excluding Spanish surnamed) increased by 10 percent, the Black population increased by 35 percent and the Spanish surnamed population increased by 32 percent. The other ethnic groups combined increased by 44 percent. Thus, while the majority groups comprised 30 percent of the population in 1970, they had accounted for half of the population growth during the prior decade. Figure 4 indicates the relative changes in the ethnic composition of the population.

FIGURE 4

ETHNIC COMPOSITION OF THE POPULATION 1960-1970					
Ethnic Group	POPULATION				Percent of Total Growth
	1960	1970	Change	%	
White (excluding Spanish surnamed)	194,657	215,188	20,531	10.5	51.0
Spanish Surnamed	30,585	40,433	9,898	32.3	24.5
Black	11,684	15,783	4,099	35.1	10.2
Others	13,063	18,804	5,741	43.9	14.3
TOTAL	249,989	290,208	40,219	16.1	100.0

#### Age Groups by Sex

Among the different age groups, the portion of the population which was over 65 years of age increased by 23 percent over the decade, accounting for over 10 percent of the total population in 1970. Figure 5 presents further data on the age composition of the population.

<sup>1</sup>The Community Development Program was a project funded through the Department of Housing & Urban Development during 1971-1972 which resulted in the preparation of several demographic, housing and economic studies as well as the establishment of a county-wide information management system.

FIGURE 5

AGE COMPOSITION OF THE POPULATION 1960-1970												
Age Group in Years	TOTAL POPULATION				MALE				FEMALE			
	1960	%	1970	%	1960	%	1970	%	1960	%	1970	%
Under 5	25,972	10.4	23,750	8.2	13,176	5.3	12,052	4.2	12,796	5.1	11,698	4.0
5-9	25,782	10.3	28,000	9.6	13,187	5.3	14,377	5.0	12,595	5.0	13,623	4.7
10-14	24,425	9.8	29,436	10.1	12,380	5.0	15,146	5.2	12,045	4.8	14,290	4.9
15-19	18,758	7.5	28,683	9.9	9,454	3.8	14,813	5.1	9,304	3.7	13,870	4.8
20-24	14,741	5.9	22,037	7.6	7,983	3.2	10,486	3.6	6,758	2.7	11,551	4.0
25-34	30,222	12.2	33,728	11.6	15,141	6.1	16,687	5.8	15,081	6.0	17,041	5.9
35-44	34,365	13.7	32,247	11.1	17,219	6.9	15,606	5.4	17,146	6.9	16,641	5.7
45-54	29,802	11.9	34,819	12.0	16,305	6.5	17,077	5.9	13,497	5.4	17,742	6.1
55-59	11,952	4.8	15,162	5.2	6,674	2.7	7,861	2.7	5,278	2.1	7,301	2.5
60-64	9,854	3.9	12,670	4.4	5,194	2.1	6,708	2.3	4,660	1.9	5,962	2.1
65-74	16,120	6.4	18,089	6.3	8,483	3.4	9,073	3.1	7,637	3.1	9,016	3.1
75 & Over	7,996	3.2	11,587	4.0	4,062	1.6	5,084	1.8	3,934	1.6	6,503	2.2
TOTAL	249,989	100.0	290,208	100.0	129,258	51.7	144,970	50.0	120,731	48.3	145,238	50.0

## Educational Attainment

From 1960 to 1970 the median number of school years completed increased from 10.0 to 11.9 years. Figure 6 presents further data on levels of education.

FIGURE 6

YEARS OF SCHOOL COMPLETED				
	1960	%	1970	%
Persons 25 years old & older	140,203	100.0	158,211	100.0
No. school years completed	6,312	4.5	4,574	2.9
Elementary: 1-4 years	11,564	8.2	9,026	5.7
5-7 years	18,840	13.4	15,841	10.0
8 years	24,836	17.7	20,077	12.6
High School: 1-3 years	26,924	19.3	30,463	19.3
4 years	31,423	22.4	45,996	29.1
College: 1-3 years	12,499	8.9	19,622	12.4
4 years or more	7,805	5.6	12,612	8.0

## Family Income

The median family income rose from \$5,889 in 1959 to \$9,602 in 1969. Of course, inflation trends were a significant factor in this dramatic increase. Figure 7 provides data on levels of family income.

FIGURE 7

FAMILY INCOME				
	1959	%	1969	%
All Families <sup>1</sup>	60,885	100.0	73,264	100.0
Less than \$1,000	2,553	4.2	1,956	2.7
\$ 1,000 to \$ 3,999	14,489	23.8	9,648	13.2
\$ 4,000 to \$ 6,999	21,232	34.9	11,750	16.2
\$ 7,000 to \$ 9,999	13,522	22.2	15,341	20.9
\$10,000 to \$14,999	6,365	10.5	20,621	28.0
\$15,000 to \$24,999	1,966	3.2	10,929	14.9
\$25,000 or more	758	1.2	3,019	4.1
<sup>1</sup> Excludes unrelated individuals				

## Income Below Poverty Level<sup>1</sup>

San Joaquin County has a substantially larger percentage of its individuals and families below the poverty level in relation to the statewide average. In 1970, 14 percent of the County's population resided in households which were

<sup>1</sup>The definition of the Poverty Level varies depending on the size of the household. In 1970, the poverty level for a family of four was an annual income of \$3,721 or less.



below the poverty level. These households included 11 percent of the families and 34 percent of the unrelated individuals. Minority groups accounted for over half of the persons below the poverty level, although they comprised just 30 percent of the population. Similarly, the elderly or retired persons, while comprising 10 percent of the population, accounted for over 15 percent of those persons below the poverty level. Especially significant is the fact that families headed by females, which comprised 10 percent of all families, accounted for nearly 40 percent of those families below the poverty level.

#### POPULATION PROJECTIONS

During the 1960's and early 1970's a variety of population estimates, forecasts and projections were made for San Joaquin County. The projections of the mid-1960's were significantly higher than forecasts made toward the end of the decade. The earlier projections were made at a time when the national birth rate was high. Net migration to California was at record heights and looked as if it would never slow down. In the late 1960's and early 1970's there was a sharp decline in the national birth rate. Westerly migration also decreased markedly. Therefore, it was determined that the population projections for San Joaquin County prepared in 1972 as part of the Community Development Project should be utilized in this revision of the General Plan.

San Joaquin County had a population of approximately 290,000 in 1970. The population is currently estimated at 305,000. Over the next twenty years, the County's population is expected to increase by over 100,000 persons, approaching a total of 417,500 people by 1995 (3). Figure 8 relates the projection for San Joaquin County to that of the State as a whole.

FIGURE 8

SAN JOAQUIN COUNTY'S POPULATION AS A PERCENT OF THE STATE POPULATION			
Year	San Joaquin County	State of California	Percent of State
1930	102,940	5,677,251	1.81
1940	134,207	6,907,387	1.94
1950	200,750	10,586,223	1.89
1960	249,989	15,717,133	1.59
1970	290,208	19,953,134	1.45
1995	417,500	30,051,000	1.39

Source: State of California Department of Finance

## Methodology

Two basic techniques were used to arrive at projected population in five year increments to 1995. Since each of the techniques uses a different data base to estimate population size, it was decided that independent calculation of two techniques and comparison of resulting figures would provide the most accurate estimate of the County's future population.

The first technique used was the Age Cohort Survival Method.<sup>1</sup> This is the projection technique used in most of the previous projections for the County. The assumptions for the CDP age cohort survival forecast varied from the earlier projections in two ways. First, a lower rate of births per mother and a higher average age of mother were assumed. Second, net migration was not considered a factor since the second technique that was used would provide better information on migration. The purpose of this first technique, then, was to determine the natural increase (difference between births and deaths) of the County base population to 1995 as a parameter for assessing the accuracy of the second method.

The second technique used was the Shift-Share Method with Local Information Input.<sup>2</sup> In this method the population size was arrived at by examining the current and anticipated future composition of the economy, forming ratios between national growth projections by industry and reasonable expectations of the area's share of industrial growth. Growth is translated into the number of jobs that will be created by the local share of national growth. Population figures are arrived at by adding the number of dependents supported by each employee and the number of unemployed individuals to the total number projected in the labor force in each five year increment. This technique provides a population figure based on the existing economy and projected economic change.

Comparison of the figures resulting from the two methods showed them to be amazingly close. The Shift-Share figures are slightly higher than the Age Cohort figures because of the inclusion of net migration as a factor in the Shift-Share technique. The results of the two techniques were combined into a single set of figures. Discussion of the use of the population forecast or projection in planning led to agreement that there should be a range of projected growth. It was determined that the composite projection developed by the consultants should provide the low figure of the range and the State Department of Finance, 1971 projection, which basically assumed a higher birth rate and proportional distribution of State in-migration in 1970, should be used as high figure of the range (Figure 9). Since all projections are estimates, the range thus provides decision makers with some feeling for the possible alternatives in terms of population size which will have to be accommodated in the area.

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<sup>1</sup>This method was used by Williams and Mocine.

<sup>2</sup>This method was used by Stanford Research Institute.

FIGURE 9

## ALLOCATION OF THE PROJECTED POPULATION TO PLANNING AREAS

ALLOCATION OF THE PROJECTED POPULATION TO PLANNING AREAS													
Planning Area		1970		1975		1980		1985		1990		1995	
		%		%		%		%		%		%	
<u>S.J. COUNTY</u>													
	HIGH	290,208	100.0	313,400	100.0	339,000	100.0	366,400	100.0	392,400	100.0	417,500	100.0
	LOW	290,208	100.0	313,000	100.0	334,000	100.0	355,000	100.0	375,000	100.0	400,000	100.0
<u>STOCKTON</u>													
	HIGH	176,218	60.72	189,061	60.32	203,201	59.94	218,124	59.53	233,385	59.47	248,055	59.41
	LOW	176,218	60.72	188,814	60.32	200,903	60.15	213,230	60.06	225,149	60.03	240,032	60.00
<u>TRACY</u>													
	HIGH	21,728	7.48	24,643	7.86	27,984	8.25	31,730	8.65	34,630	8.82	37,371	8.95
	LOW	21,728	7.48	24,643	7.86	27,141	8.12	29,578	8.33	31,707	8.45	34,482	8.62
<u>MANTENCA</u>													
	HIGH	26,562	9.15	29,818	9.51	23,489	9.88	37,501	10.23	40,616	10.35	43,599	10.44
	LOW	26,562	9.15	29,815	9.53	32,626	9.77	35,075	9.88	37,298	9.95	40,185	10.05
<u>LOCKEFORD</u>													
	HIGH	5,139	1.77	5,570	1.77	5,969	1.76	6,399	1.74	6,799	1.73	7,209	1.72
	LOW	5,139	1.77	5,570	1.77	5,912	1.77	6,275	1.76	6,622	1.76	7,029	1.75
<u>THORNTON</u>													
	HIGH	2,121	.73	2,176	.69	2,231	.65	2,286	.62	2,344	.59	2,404	.57
	LOW	2,121	.73	2,151	.68	2,183	.65	2,218	.62	2,253	.60	2,288	.57
<u>LODI</u>													
	HIGH	39,832	13.72	42,762	13.64	45,932	13.54	49,303	13.45	52,663	13.42	55,933	13.39
	LOW	39,832	13.72	42,699	13.64	45,323	13.56	48,068	13.54	50,730	13.52	53,980	13.49
<u>RIPON</u>													
	HIGH	5,362	1.84	5,690	1.81	6,050	1.78	6,420	1.75	6,810	1.73	7,224	1.73
	LOW	5,362	1.84	5,690	1.81	5,980	1.79	6,285	1.77	6,605	1.76	6,976	1.74
<u>ESCALON</u>													
	HIGH	6,986	2.40	7,416	2.36	7,880	2.32	8,370	2.28	8,878	2.26	9,418	2.25
	LOW	6,986	2.40	7,416	2.36	7,794	2.33	8,192	2.30	8,610	2.29	9,050	2.26
<u>LINDEN</u>													
	HIGH	3,017	1.03	3,092	.98	3,171	.93	3,251	.88	3,333	.84	3,418	.81
	LOW	3,017	1.03	3,062	.97	3,107	.93	3,152	.88	3,200	.85	3,250	.81
<u>S. DELTA</u>													
	HIGH	3,252	1.12	3,172	1.01	3,093	.91	3,016	.82	2,942	.75	2,869	.69
	LOW	3,252	1.12	3,140	1.00	3,031	.89	2,927	.82	2,826	.75	2,728	.68

12/26/92 REVISED: 2/94

SOURCE: San Joaquin County Council of Governments, Housing Element (Phase II).





## POPULATION DISTRIBUTION

Over 75 percent of the County's population resides within the incorporated cities and adjacent urbanized areas. The Stockton urbanized area alone accounts for more than half of the total County population. Other urban population centers consist of small unincorporated communities located in outlying rural areas of the County. Allocation of the projected County population to the various planning areas assumes that this pattern of growth will continue throughout the planning period (Figure 9 ). Map 7 delineates Planning Areas.

Population estimates for urban areas are contained in the chapter on Area Plans. The high and low projections were derived from differing sets of assumptions, involving mainly the birth rate and net migration. Further details on the methodology utilized in allocating future population within the County are contained in Housing and Population Projections for San Joaquin County 1980 and 1995 ( 3 ).

The distribution of the future population within the County provides the basis for measuring the need or demand for public and private development and expenditures. Many decisions are based upon the expected concentration of the population in the vicinity of the existing urban areas. The total and proportionate amounts and the locations of land which must be set aside either by zoning or through governmental acquisition for public services and public activities can be established as it relates to this expected population growth. Determination of central locations within the proposed areas of service for public and quasi-public buildings, services, and utilities can be based on proposed residential development. Necessary circulation and transportation requirements resulting from population growth and the demand for industrial and commercial development, schools, parks and other recreational, social and cultural activities, can be established in general using the same approach.

## HOUSING

The Housing Element of the General Plan for San Joaquin County was adopted in 1970. It contains a statement of Goals and Policies and a Summary of Findings based on a prior technical report (10). The San Joaquin County Council of Governments also has an adopted Housing Element, which has been developed in several phases. Phase I provided an overview of housing problems, conditions, and related programs, and also identified specific housing goals (1). Phase II, based on research conducted as part of the Community Development Program, further analyzed housing needs, identified obstacles and constraints involved in meeting the needs, and proposed an action program to overcome the observed problems and deficiencies (2). One part of the action program, an affirmative housing plan, has already been adopted (6). Phase II provides the basis for the analysis of housing presented in this section. Phase III will evaluate the feasibility of various proposals in the suggested action program and develop specific recommendations for implementation.

### HOUSING TRENDS

The following paragraphs summarize changes which occurred from 1960 to 1970, as well as anticipated trends during the planning period.

#### Household Size

During the 1960's while the population of San Joaquin County increased by 16 percent, the number of housing units increased by 20 percent. This differential increase reflects the noticeable decrease in average household size (population per household) which took place. The actual size varies throughout the County although households tend to be larger in the rural areas and smaller in urbanized areas. Also, household sizes for the minority population and for families below the poverty level are larger than for the population as a whole. Average household size is projected to further decline from 3.03 in 1970 to 2.79 by 1995.

#### Housing Types

Over half of the housing units constructed during the 1960's were single family units, although the proportion of units in multiple family structures increased from 13 percent to nearly 20 percent. Building permit data for 1970 through 1973 reveal that nearly half of the new units continue to be built in multiple family structures, as well as that approximately one out of six permits issued for single-family dwellings were for mobilehomes. Nearly half of the total units to be constructed by 1995 are expected to be in multiple family structures, thereby increasing the proportional share to 30 percent.

#### Housing Occupancy

Since 1960, the relationship between renter-occupied units and owner-occupied units shifted slightly, with the result that in 1970, renter households accounted for nearly 40 percent of all occupied units in the County. The relatively low vacancy rates indicate that there is some lack of market



flexibility. The number of overcrowded units decreased slightly during the 1960's, but in 1970 still nearly one out of every ten households was overcrowded.<sup>1</sup>

#### Housing Stock

In 1970 approximately 6 percent of the housing stock was in seriously deteriorating condition and in need of replacement. The number of such housing units is significantly greater in the unincorporated areas than in the incorporated portions of areas surveyed. The median age of year-round housing units in the County increased during the previous decade in spite of loss to the existing housing stock and significant new construction.

#### Housing and Income

Although the increase in median family income during the 1960's exceeded that of the median value of owner-occupied units, it was significantly less than the increase in the median contract rent. There is a higher incidence of excessive rent payments in relation to income among the elderly, households headed by women, and minorities than among lower-income households as a whole. It is estimated that one out of every six owner households had incomes too low to adequately maintain their homes. One-person households, especially elderly persons, and large households containing six or more persons have notably higher incidences of inadequate income for home maintenance than other household sizes.

#### HOUSING NEEDS

It is estimated that between 1970 and 1995, the population of San Joaquin County will increase by approximately 127,000. Based upon this projection and the trends above, various aspects of the housing need become apparent:

- 1) Over 50,000 additional housing units will be needed by 1995 just to accommodate the anticipated population growth;
- 2) Over 20,000 units will need to be constructed by 1995 to replace delapidated units;
- 3) Over 4,000 units are needed to alleviate existing overcrowding of housing units;
- 4) Nearly 3,000 additional units will be needed through 1995 to maintain a vacancy rate adequate to provide reasonable market flexibility;
- 5) Over 27,000 lower income households are currently in need of some form of housing assistance.

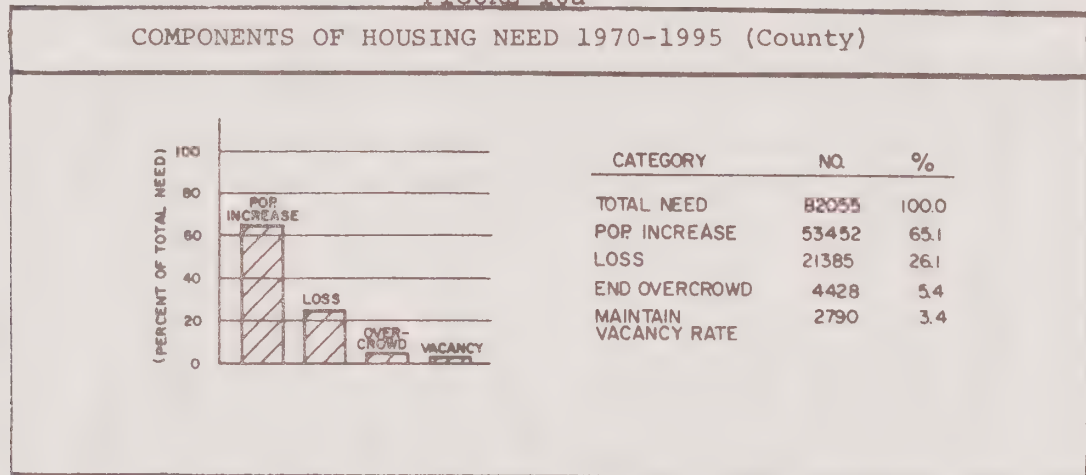
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<sup>1</sup>The term "overcrowded" as used here refers to households where there is more than one person per habitable room.

## Optimum Housing Need

A total of over 80,000 units will need to be constructed to adequately house the expected 1995 population of San Joaquin County.

FIGURE 10a



For purposes of further analysis, the optimum housing need in San Joaquin County has been broken down into current housing need (1970-75), and long-term housing need (1975-1995).

Current Housing Need. A study of the current housing need revealed that from 1970 to 1975, approximately 25,800 housing units should have been built in the County. The components of this need were as follows:

FIGURE 11a

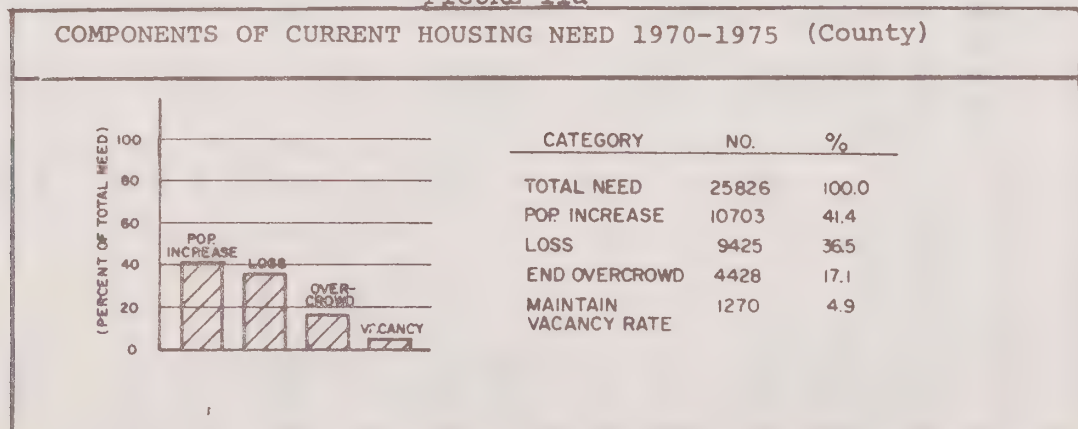


FIGURE 10b

## OPTIMUM HOUSING NEED 1970-1995 (Planning Area)

Planning Area	1970	1975	1980	1985	1990	1995	25 YEAR TOTAL	Planning Area	1970	1975	1980	1985	1990	1995	25 YEAR TOTAL
SAN JOAQUIN COUNTY								RIPON PA							
TOTAL HOUSING STOCK	96563 <sup>2</sup>	112964	124655	136692	147466	157233		TOTAL HOUSING STOCK	1692	2006	2195	2377	2557	2735	
FOR POP. INCREASE		10703	11288	11625	10405	9431	53452	FOR POP. INCREASE		191	182	176	174	172	895
FOR LOSS	6115	3310	3175	3049	2927	2809	21385	FOR LOSS	102	48	46	45	44	42	327
MAINTAIN VACANCY RATE	888	382	403	412	369	336	2790	MAINTAIN VACANCY RATE	35	7	7	6	6	6	67
END OVERCROWDING	4428						4428	END OVERCROWDING	81						81
TOTAL NEED	11431	14395	14866	15086	13701	12576	82055	TOTAL NEED	218	246	235	227	224	220	1370
STOCKTON PA								LOCKEFORD-CLEMENTS PA							
TOTAL HOUSING STOCK	59864	68798	74827	81870	88114	93576		TOTAL HOUSING STOCK	1637	2078	2325	2483	2629	2779	
FOR POP. INCREASE		5581	5825	6805	6033	5277	29521	FOR POP. INCREASE		310	238	152	141	145	986
FOR LOSS	4387	2497	2384	2277	2175	2077	15797	FOR LOSS	82	39	38	37	36	35	267
MAINTAIN VACANCY RATE	432	195	204	238	211	185	1465	MAINTAIN VACANCY RATE	21	11	9	6	5	5	57
END OVERCROWDING	2726						2726	END OVERCROWDING	99						99
TOTAL NEED	7545	8273	8413	9320	8419	7539	49509	TOTAL NEED	202	360	285	195	182	185	1409
LODI PA								SOUTH DELTA PA							
TOTAL HOUSING STOCK	13754	15962	17717	19126	20552	21884		TOTAL HOUSING STOCK	561	645	661	673	689	696	
FOR POP. INCREASE		1508	1694	1360	1376	1285	7223	FOR POP. INCREASE		18	15	12	15	7	67
FOR LOSS	417	200	197	194	191	188	1387	FOR LOSS	56	25	24	23	22	21	171
MAINTAIN VACANCY RATE	192	55	61	49	50	47	454	MAINTAIN VACANCY RATE	17	1	1	0	1	0	20
END OVERCROWDING	453						453	END OVERCROWDING	48						48
TOTAL NEED	1062	1763	1952	1603	1617	1520	9517	TOTAL NEED	121	44	40	35	38	28	306
TRACY PA								LINDEN-PETERS PA							
TOTAL HOUSING STOCK	7178	8734	10107	11550	12814	13980		TOTAL HOUSING STOCK	1029	1182	1247	1283	1321	1355	
FOR POP. INCREASE		1103	1325	1392	1220	1125	6165	FOR POP. INCREASE		70	63	35	37	33	238
FOR LOSS	433	202	196	190	185	179	1385	FOR LOSS	72	33	32	31	30	29	227
MAINTAIN VACANCY RATE	54	40	48	51	44	41	278	MAINTAIN VACANCY RATE	16	3	2	1	1	1	24
END OVERCROWDING	359						359	END OVERCROWDING	64						64
TOTAL NEED	846	1345	1569	1633	1449	1345	8187	TOTAL NEED	152	106	97	67	68	63	553
MANTECA-LATHROP PA								THORNTON PA							
TOTAL HOUSING STOCK	7984	10205	11947	13439	14634	15798		TOTAL HOUSING STOCK	602	694	725	759	790	834	
FOR POP. INCREASE		1674	1681	1440	1153	1123	7071	FOR POP. INCREASE		29	30	33	30	42	164
FOR LOSS	367	175	171	167	163	159	1202	FOR LOSS	41	17	16	16	15	15	120
MAINTAIN VACANCY RATE	62	61	61	52	42	41	319	MAINTAIN VACANCY RATE	12	1	1	1	1	2	18
END OVERCROWDING	424						424	END OVERCROWDING	50						50
TOTAL NEED	853	1910	1913	1659	1358	1323	9016	TOTAL NEED	103	47	47	50	46	59	352
ESCALON PA															
TOTAL HOUSING STOCK	2262	2660	2904	3132	3366	3596									
FOR POP. INCREASE		219	235	220	226	222	1122								
FOR LOSS	158	74	71	69	66	64	502								
MAINTAIN VACANCY RATE	47	8	9	8	8	8	88								
END OVERCROWDING	124						124								
TOTAL NEED	329	301	315	297	300	294	1836								

<sup>1</sup>Optimum housing stock assumes that needs accumulated by the interval year have been met by that year.

<sup>2</sup>Total housing stock for 1970 reflects existing housing stock. The needs listed below for 1970 are unmet needs.



FIGURE 11b

## CURRENT HOUSING NEED 1970-1975 (Planning Area)

	SAN JOAQUIN COUNTY		STOCKTON PA		LODI		TRACY PA		MANTECA-LATHROP PA		ESCALON PA	
	#	%	#	%	#	%	#	%	#	%	#	%
TOTAL NEED	25826	100.0	15818	100.0	2825	100.0	2191	100.0	2763	100.0	630	100.0
CAUSE:												
POP. INCREASE	10703	41.4	5581	35.3	1508	53.4	1103	50.3	1674	60.6	219	34.8
LOSS	9425	36.5	6884	43.5	617	21.8	635	29.0	542	19.6	232	36.8
VACANCY	1270	4.9	627	4.0	247	8.7	94	4.3	123	4.5	55	8.7
END OVERCROWDING	4428	17.1	2726	17.2	453	16.0	359	16.4	424	15.3	124	19.7
% TOTAL 1970 HOUSING STOCK NEEDED	26.7		26.4		20.5		30.5		34.6		27.9	
AVERAGE ANNUAL NEED UNITS ADDED	5165		3164		565		438		553		126	
1970	2678	51.8	1883	59.5	345	61.1	102	23.3	233	42.1	26	20.6
1971	3090	59.8	1974	62.4	350	61.9	155	35.4	432	78.1	48	38.1
1972	4046	78.3	1881	59.5	774	137.0	619	141.3	395	71.4	68	54.0
1973	3194	61.8	1806	57.1	545	96.5	275	62.8	342	61.8	49	38.9
AVERAGE/YEAR	3252	63.0	1886	59.6	504	89.2	288	65.8	351	63.5	48	38.1

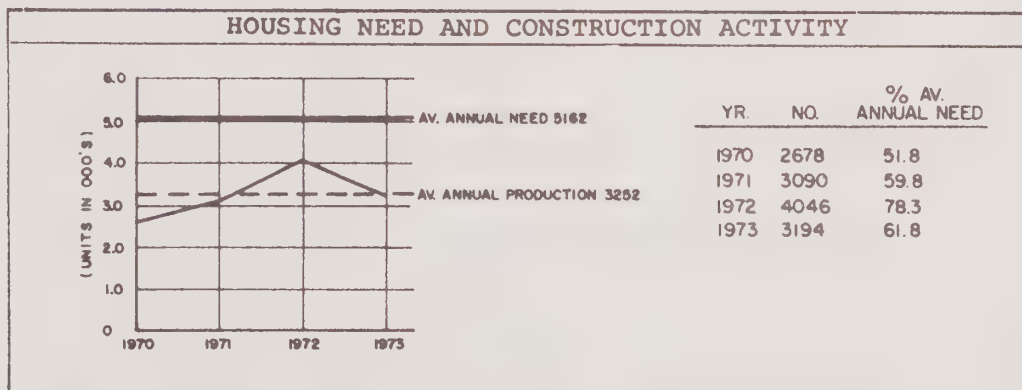
	RIPON PA		LOCKEFORD-CLEMENTS PA		SOUTH DELTA PA		LINDEN-PETERS PA		THORNTON PA	
	#	%	#	%	#	%	#	%	#	%
TOTAL NEED	464	100.0	562	100.0	165	100.0	258	100.0	150	100.0
CAUSE:										
POP. INCREASE	191	41.2	310	55.2	18	10.9	70	27.1	29	19.3
LOSS	150	32.3	121	21.5	81	49.1	105	40.7	58	38.7
VACANCY	42	9.1	32	5.7	18	10.9	19	7.4	13	8.7
END OVERCROWDING	81	17.5	99	17.6	48	29.1	64	24.8	50	33.3
% TOTAL 1970 HOUSING STOCK NEEDED	27.4		34.3		29.4		25.1		24.9	
AVERAGE ANNUAL NEED UNITS ADDED	93		112		33		52		30	
1970	16	17.2	42	37.5	2	6.1	24	46.2	5	16.7
1971	24	25.8	67	59.8	4	12.1	25	48.1	11	36.7
1972	53	57.0	140	125.0	4	12.1	28	53.8	84	280.0
1973	54	58.1	90	80.4	9	27.3	23	44.2	1	3.3
AVERAGE YEAR	37	39.8	85	75.9	5	15.2	25	48.1	25	83.3

<sup>1</sup>Current housing need reflects needs accumulated to 1975 including needs not met by 1970

The data shows that while units needed for population increase were the dominant need category, units needed to replace deteriorated housing were almost of equal rank. From 1970 to 1975, some 10,700 housing units should have been built for projected population increase and approximately 9,400 to replace obsolete housing units.

On an annual basis, some 5,165 units should have been built from 1970 to 1975 to adequately house the population. Unfortunately, building permit data from 1970 to 1973 reveals that the average annual production of housing units was only 3,252 or 63 percent of average annual need. Even if population projections were inflated, this means that most of the unmet housing need must be carried over into the long-term housing need, since only 41 percent of the current housing need was for population increase.

FIGURE 12



Long Term Housing Need. Examination of long term housing need (1975-1995) reveals that some 2,811 units must be constructed on an annual basis in order to meet the housing needs of the population. The majority of this need, 2,137, is for population increase. Over the period, a total of 56,229 housing units will be required. Of this total, 42,749 should be constructed for population increase. The components of this need by percentage rank is provided below:

FIGURE 13a

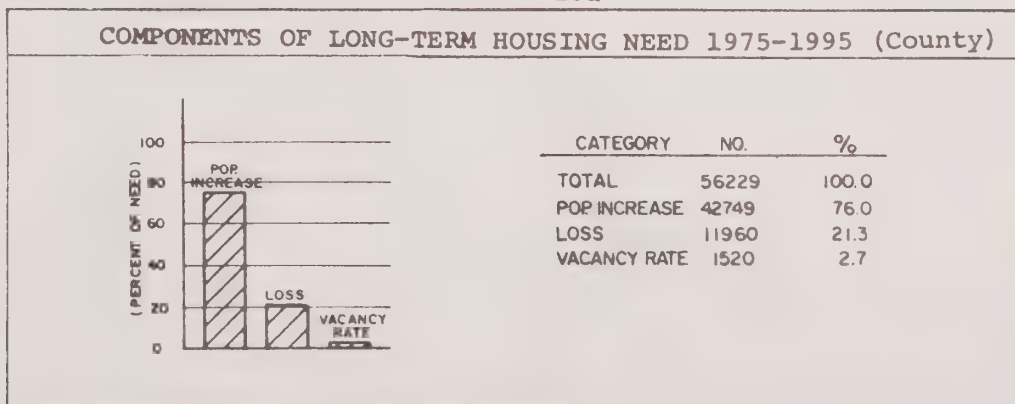


FIGURE 13b

## LONG-TERM HOUSING NEED 1975-1995 (Planning Area)

	SAN JOAQUIN COUNTY	STOCKTON PLANNING AREA	LODI PLANNING AREA	TRACY PLANNING AREA	MANTECA- LATHROP PLANNING AREA	ESCALON PLANNING AREA	RIPON PLANNING AREA	LOCKEFORD- CLEMENTS PLANNING AREA	SOUTH DELTA PLANNING AREA	LINDEN- PETERS PLANNING AREA	THORNTON PLANNING AREA
TOTAL NEED 1975-1995	56229	33691	6692	5996	6253	1206	906	847	141	295	202
FOR POPULATION INCREASE	42749	23940	5715	5062	5397	903	704	676	49	168	135
FOR LOSS	11960	8913	770	750	660	270	177	146	90	122	62
TO MAINTAIN VACANCY RATE	1520	838	207	184	196	33	25	25	2	5	5
CURRENT AVERAGE ANNUAL NEED 1970-1975	5165	3164	565	438	553	126	93	112	33	52	30
LONG-TERM AVERAGE ANNUAL NEED 1975-1995	2811	1685	335	300	313	60	45	42	7	15	10
FOR POPULATION INCREASE	2137	1197	286	253	270	45	35	34	2	8	7
FOR LOSS	598	446	39	38	33	14	9	7	5	6	3
TO MAINTAIN VACANCY RATE	76	42	10	9	10	2	1	1	0	0	0



## Housing Assistance

An important consideration in meeting the optimum housing need is the fact that over 27,000 lower-income households, or 30 percent of all households in the County, are estimated to be in need of some form of financial housing assistance. In 1970, nearly 10,000 households which owned their homes had incomes inadequate for home maintenance. Over 17,000 lower-income rental households could have benefited from some housing assistance. Over one-third of the total households requiring assistance were single-person households. These nearly 10,000 households represented over one-half of all single-person households.

Decent housing for all has long been a goal of the federal government. Various forms of federal housing assistance have been available in the past, but the future of many of the programs for low and moderate cost housing is uncertain at this time. Home ownership continues to be promoted by incentives such as federally guaranteed mortgages and federal and State tax deductions for mortgage interest and property taxes as well as property tax relief benefits for home owners. These programs of course apply to everyone and all costs of housing. As construction costs increase, fewer people can afford to own a home and more may need some form of renter assistance.

## OBSTACLES AND CONSTRAINTS

### Housing Costs

The cost of an average 1,000 square foot tract house built in the County in 1974 was about \$25,000, not including land. Comparison of building permit data from 1960 through 1969 reveals an average inflation rate of construction cost of a house of about 5 percent per year; however, in the past several years, the annual inflation rate has been considerably greater. The other major factor besides building materials and labor which has added increasingly to construction costs is the cost of capital, which also affects the cost of financing the purchase of a house. The cost of land is a relatively less important factor in higher housing costs in the County than the cost of materials and labor; however, this cost can vary greatly throughout the County depending on the location and the availability of water and sewer service.

Examination of redevelopment projects completed or underway indicates that rehabilitation undertaken on a public project basis costs less per unit than the typical private new development. Similarly, bringing units in the County up to code cost, on the average, about one-third the cost of a new unit. This finding is based on an evaluation of Federally Assisted Code Enforcement projects undertaken in the Stockton area.

### Socioeconomic Considerations

The amount of education a person obtains affects his level of income and freedom of occupational choice. The level of educational attainment is somewhat lower in San Joaquin County than for the State as a whole. Over twenty-eight percent of the adult population of San Joaquin County has an eighth grade education

or less. The educational level of minorities is significantly below that for the County population as a whole. The high rates of unemployment and underemployment in San Joaquin County precludes a significant portion of the population from qualifying for home financing or having the resources to maintain a house in good condition. There is a higher incidence of unemployment and underemployment among the Black and Spanish-speaking population than among the white population.

The problems of meeting the housing needs of the minority communities within the County are compounded by the fact that minority residents often experience difficulty in obtaining financing for home purchase or construction in low income areas. In addition, these residents have expressed difficulty securing home improvement loans. It is that lending institutions apply stricter loan criteria in these areas than is warranted, and that lending practices effectively discriminate against minorities and persons with moderate incomes who choose to live in neighborhoods with high ethnic concentrations. The present alternative to living in an area where loans are not freely granted is to move. To many middle-income, minority residents, this presents an undue hardship because they feel that the cost of housing would be proportionately higher with no compensating increase in amenities.

The expectations of lower income households often are not met by the present housing delivery system. There is a high demand for single family and town-house-types of residential development and opposition to "projects" or any other form of intense development which tends to segregate people by race or income. The needs of lower income households have not been quantitatively met by federally sponsored housing programs, although some programs have been adequate in quality. Although assisted scattered-site housing is considered particularly beneficial by low income families, it has been hampered in its application because of local opposition. Without some significant change in the housing delivery system, housing of the kind desired cannot be provided at a cost which these households can afford.

#### Governmental Policies

The withdrawal of federal funding support for most housing programs has seriously compromised the ability of local jurisdictions to provide housing for lower income families. Although County and city roles in housing are established by the State, the State has not yet provided funding support for housing programs. State legislation enacted just this year created a housing finance agency, and activation of the proposed programs, to be administered locally, would involve the State in financing new construction and rehabilitation.

Local governmental policies are often in conflict with stated housing goals. Governmental actions and policies directly affect the cycle of depreciation in neighborhoods. In this regard, the following should be noted:

- 1) Residents have complained that public services are inadequate or even absent in areas of residential decline while capital improvements are readily extended in new growth areas. Data from the Stockton Neighborhood Analysis Study (52) supports the contention that South Stockton has suffered from population decline and benign neglect while neighborhoods to the north are encouraged to grow.

FIGURE 14 NEED DETERMINATION FOR ASSISTED HOUSING BY PLANNING AREAS

Planning Area	Need			% Total Need
	Renter	Homeowner	Total	
S. J. County (Total)	17,777	9,796	27,573	100.0
Stockton	11,761	5,894	17,655	64.0
Lodi	2,720	1,307	4,027	14.6
Tracy	1,061	694	1,755	6.4
Manteca	1,011	878	1,889	6.9
Escalon	358	281	639	2.3
Ripon	235	214	449	1.6
Lockeford-Clements	209	254	463	1.7
Linden-Peters	187	177	364	1.3
Thornton	103	48	151	0.5
S. Delta	132	49	181	0.7

FIGURE 15 NEED DETERMINATION FOR ASSISTED HOUSING BY PLANNING AREAS WITH MAJOR URBAN CENTERS

Planning Area	Total		Incorporated		Unincorporated	
	No.	%	No.	%	No.	%
Stockton	17,655	100.0	12,606	71.4	5,049	28.6
Lodi	4,027	100.0	3,310	82.2	717	17.8
Tracy	1,755	100.0	1,267	72.2	488	27.8
Manteca	1,889	100.0	1,092	57.8	797	42.2



- 2) Zoning, particularly that for industry, is often unrealistic and does not represent where development is likely to occur. In existing residential neighborhoods, such zoning fosters residential decline. Other development regulations may unnecessarily contribute to the added cost of housing. Although large setbacks, wide streets, sidewalks on both sides and underground drainage are preferable, the question arises whether they are necessary when a large percentage of the population is not even housed in adequate structures.
- 3) City-initiated annexations have sometimes failed because cities have not adequately responded to the concerns of residents regarding the consequences of annexation. Residents of unincorporated fringe areas have expressed a desire for the benefits of being part of an adjacent city but fear, often erroneously, that such services will greatly increase their costs.

#### AFFIRMATIVE HOUSING PLAN

In the regional affirmative housing plan ( 6 ), the major concern is that while new housing is being produced for upper and middle-income households, very little is being produced, either new or rehabilitated, for those whose circumstances result in limited income. Consequently, this group has no choice but to live in units which are often deteriorated, too small for their needs, or otherwise inadequate. Additionally, disadvantaged households tend to be housed in neighborhoods characterized by socio-economic decline.

#### Housing Need Determination

Policies must be developed which will promote a broad range of housing opportunities for disadvantaged households in order to achieve the goal of providing safe and adequate housing in a variety of types and location for all households regardless of income level. Thus, to meet the total optimum housing need in San Joaquin County, assisted housing proposals should be evaluated on the basis of meeting the need for housing assistance, for both renter and owner households, on a planning area by planning area basis. Criteria have been established to aid in such evaluations (Figures 14 and 15 ).

## ECONOMY

Population growth and economic growth reinforce each other and together create the demands for additional development within the County. Increases in population and the consequent market and labor supply attract more industry and business. A larger number of industries and consequent job opportunities attract workers and their families. A surplus of jobs will tend to attract employees from other areas where there is a surplus of labor. On the other hand, a shortage of work opportunities will limit the growth of population by forcing employment seekers, especially young people seeking their first jobs, to leave the area. Figure 16 indicates recent trends in the relationship among the population, labor force, and employment.

FIGURE 16

POPULATION, LABOR FORCE, AND EMPLOYMENT IN SAN JOAQUIN COUNTY 1960-1970					
Year	Population (thous. as of July 1	Labor Force (thous.)	Labor Force/ Population (percent)	Unemploy- ment rate (percent)	Employ- ment (thous.)
1960	251.7	98.9	39.3	8.3	90.7
1961	255.8	100.0	39.1	9.2	90.8
1962	259.1	101.0	39.0	8.6	92.3
1963	262.2	103.3	39.4	8.6	94.4
1964	265.4	106.3	40.1	7.8	98.0
1965	272.3	110.1	40.4	7.4	101.9
1966	277.7	113.7	40.9	6.3	106.5
1967	280.3	118.5	42.3	7.3	109.9
1968	283.6	121.0	42.7	7.1	112.4
1969	286.3	123.0	43.0	6.8	114.6
1970	290.7	123.6	42.5	8.3	113.3
SOURCE: Projections of the Economy of San Joaquin County, Stanford Research Institute, September, 1973.					

### SECTORS OF THE ECONOMY

Certain sectors of the economy function as prime generators of economic activity in the County. They are referred to as export industries because a large share of their goods or services are sold outside the County. Activity generated by these export industries creates activity among the residentiary industries, or those whose goods and services are sold mainly within the County. Figure 17 groups the various sectors of the economy into export and residentiary industries.

Economic activity can be measured in terms of levels of employment. Thus, the future economic climate of the County is dependent on the ability of the various sectors of the economy, especially the export industries, to generate additional employment.

FIGURE 17

EXPORT AND RESIDENTIARY INDUSTRIES IN SAN JOAQUIN COUNTY	
Export Industries	Residentiary Industries
Government	Retail Trade
Agriculture	Wholesale Trade
Manufacturing (Food Processing)	Construction
Manufacturing (Except Food Processing)	Other Transportation and Utilities
Medical and Other Health Services	Finance
Trucking and Warehousing	Insurance and Real Estate
Railroads	Other Services
Entertainment and Recreation	Other Non-Agricultural, Non-Wage and Salary
Source: <u>Projections of the Economy of San Joaquin County</u> , Stanford Research Institute, September 1973.	

## UNEMPLOYMENT

While over the decade from 1960 to 1970, employment has increased in the County by some 2.2 percent per year, the number of unemployed has increased at even a greater rate. This high rate of unemployment has excluded the young trainable men and women from the fully-employed labor force, encouraging them to seek employment outside of the County. Training programs to upgrade skills of the unemployed and seasonally employed are being offered by a variety of public and private agencies. While this is a positive step toward meeting the needs of increasing mechanization in agriculture and related industries, new job opportunities in and outside of the County need to be sought out and developed if even the retrained part of the labor force is to be fully employed.

### Experience of the Unemployed

Figure 18 shows the last occupation of the experienced unemployed in 1970. This data reveals that the majority (51 percent) of the unemployed men had experience as operatives, including transportation, craftsmen, foremen and kindred workers. The majority (56 percent) of women unemployed had experience as operatives, including transportation, and clerical and kindred workers. The experience among the County's unemployed males includes that of laborers and farm workers. Among women, a reserve of experience is also available among service workers, except household, and sales workers.

This data provides insight into areas of surplus labor in the County and to skills which may be attractive to new or expanding industries. It should be noted that since the United States Census is taken in April of each year, before agriculture has begun its major harvesting and processing operations, there may not be the large surpluses of operatives, laborers, and farm workers later in the year. Thus, while these figures reveal the skills available among the unemployed, they also reflect the highly seasonal nature of the County's employment.

Of the experienced unemployed, almost 30 percent of the women and 37 percent of the men are unskilled. These high percentages reflect the real need for training programs to improve the competitive position of these workers in the labor market.



FIGURE 18

LAST OCCUPATION OF EXPERIENCED UNEMPLOYED <sup>1</sup> BY SEX IN SAN JOAQUIN COUNTY, 1970				
Occupation	Male		Female	
	No.	% of Total	No.	% of Total
Total	5018	100.0	3474	100.0
Professional, Technical & Managerial	349	7.0	196	5.6
Sales Workers	112	2.2	287	8.3
Clerical and Kindred	123	2.5	751	21.6
Craftsmen	1205	24.0	---	---
Operatives, Including Transportation	1376	27.4	1208	34.8
Other Blue Collar	---	---	121	3.5
Laborers, Ex-farm	683	13.6	---	---
Farm Workers	747	14.9	193	5.6
Service Workers, Ex Private Household	---	---	492	14.2
Private Household Workers	---	---	151	4.3
Service Workers Including				
Private Households	394	7.9	---	---
Other	29	0.5	75	2.1

<sup>1</sup>16 years and over.

Source: United States Census of Population, General Social and Economic Characteristics, California, 1970

## EMPLOYMENT PROJECTIONS

In order to attain an economy that would support the expected population and achieve full employment, an additional 45,000 job opportunities would have to be provided by 1995. This figure is based on the low population projection (400,000). However, according to employment projections prepared for the County in conjunction with the population projections (4), it is estimated that only 37,000 additional job opportunities will be generated within the County by 1995. Based on this outlook for the economy, and assuming the low population projection remains valid, the unemployment rate would be reduced to 5 percent over the planning period. If the County approaches the high population projection, then the unemployment rate would remain at present levels.

Figure 19 indicates the projected employment for the various sectors of the economy. Total annual average employment is projected to increase from about 115,000 in 1971 to over 151,000 by 1995. The projections can be characterized as being moderately optimistic, but within the constraints of the County's general economic development potential as well as national and regional economic trends. Several implied assumptions of particular importance are:

1. There will be no major hindrance to economic growth from factors such as lack of power, water, land or labor;
2. There will be active and effective promotional efforts to attract industries for which the County offers some relative locational advantages.

Most industries are projected to have a moderate increase in employment over the planning period. Exceptions are agriculture and railroads, where employment is shown to decrease. (Detailed analyses of each sector of the economy can be found in the referenced report.)

FIGURE 19

EMPLOYMENT PROJECTIONS AND RELATED POPULATION PROJECTIONS TO 1980 AND 1995 FOR SAN JOAQUIN COUNTY			
ECONOMIC SECTOR	Annual Average (in thousands)		
	1971	1980	1995
Export Industries	64.0	70.9	81.5
Government	23.8	23.5	25.0
Agriculture	15.1	13.9	10.5
Manufacturing Food Processing	7.1	9.2	10.7
Manufacturing Except Food Processing	10.0	14.1	20.3
Medical and Other Health Services	4.1	4.9	6.3
Trucking and Warehousing	2.0	2.8	4.3
Railroads	1.3	1.1	1.0
Entertainment and Recreation	.5	1.4	3.4
Residential Industries	50.5	59.1	69.7
Retail Trade	14.6	17.8	20.4
Wholesale Trade	4.5	6.1	6.8
Construction	4.3	6.0	6.7
Other Transportation & Utilities	3.1	3.1	3.6
Finance	1.7	2.5	2.8
Insurance & Real Estate	1.2	1.4	1.5
Other Services	9.8	10.6	14.2
Other Non-Agricultural, non wage & salary	11.3	11.6	13.7
Total Employment	114.5	130.0	151.2
Unemployment Rate	8.4%	7.5%	5.0%
Civilian Labor Force	125.0	140.5	159.2
Labor Force/Population Ratio	42.3%	42.0%	40.0%
Total Population	295.2	334.5	398.0

Source: Projections of the Economy of San Joaquin County, Stanford Research Institute, September, 1973.

#### EMPLOYMENT DISTRIBUTION

The distribution of employment opportunities throughout the County is generally related to the distribution of population although several major industrial and institutional employment centers are located in rural areas. Also, a significant amount of commuting between various communities within and without the County takes place. Figure 20 indicates the estimated distribution of projected peak employment by planning area. These estimates are derived from the County-wide employment projections for 1980 and 1995; however, the numbers represent projected September employment in the various sectors of the economy thus reflecting the seasonal peaks which are experienced by agriculture and related sectors.

FIGURE 20

PEAK EMPLOYMENT PROJECTIONS<sup>1</sup>  
TO 1980 AND 1995  
FOR SAN JOAQUIN COUNTY  
BY PLANNING AREA

	MFG. FOOD PROCESSING			OTHER MFG.			RAILROADS			CONSTRUCTION			TRUCKING WAREHOUSING			OTHER TRANSP. AND UTILITIES			WHOLESALE TRADE			RETAIL TRADE		
	1970	1980	1995	1970	1980	1995	1970	1980	1995	1970	1980	1995	1970	1980	1995	1970	1980	1995	1970	1980	1995	1970	1980	1995
Stockton	5230	7726	8776	5459	8115	11683	1102	800	725	2419	3702	5050	1493	1924	3010	2225	2225	2561	3607	4624	5425	10127	12588	14910
Delta	5	5	10							7	10	15	53	55	60	210	209	214				4	10	15
Thornton	590	875	1010							1	5	10	1	10	15	11	10	15				8	20	25
Lodi	1812	2764	3149	1724	2437	3500	12	8	15	313	595	635	305	345	517	223	220	253	482	796	920	2037	2416	2796
Lockeford	89	140	160	19	30	50				12	25	30	21	25	30	36	35	40	30	45	45	85	110	125
Linden	12	15	20	36	50	50				3	10	15	1	10	15	42	35	35	13	15	20	81	90	100
Escalon	400	600	695	17	150	260				129	155	185	29	50	85	5	10	20	9	40	55	109	150	185
Ripon	500	740	850	384	450	550				58	110	140	41	50	80		10	20	91	105	110	197	250	270
Manteca	285	430	500	1530	2120	3050				155	325	370	167	225	400	216	214	234	210	300	340	685	860	1015
Tracy	1537	2295	2650	570	950	1470	391	285	263	102	295	350	213	290	451	80	85	105	287	385	435	882	1115	1300
TOTALS	10460	15590	17820	9739	14302	20613	1505	1093	1003	3199	5232	6800	2324	2984	4663	3048	3053	3497	4729	6310	7350	14215	17609	20741

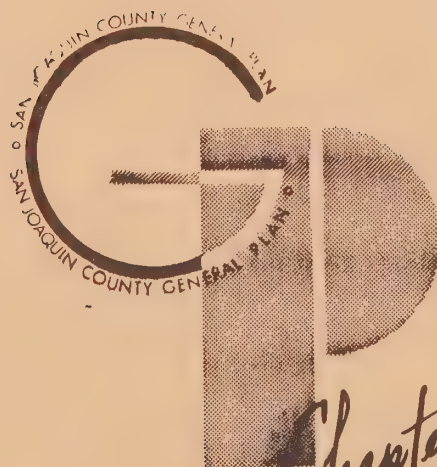


(Continued figure 20, Peak Employment Projections)

	FINANCE			INSURANCE & REAL ESTATE			ENTERTAINMENT & RECREATION			MEDICAL & HEALTH			GOVERNMENT			OTHER SERVICES			AGRICULTURE			OTHERS			TOTAL		
	1970	1980	1995	1970	1980	1995	1970	1980	1995	1970	1980	1995	1970	1980	1995	1970	1980	1995	1970	1980	1995	1970	1980	1995	1970	1980	1995
Stockton	1410	1757	1973	962	1209	1284	545	1155	2182	2633	3155	4384	12810	12810	13767	4623	8223	11118	--	1328	1005	--	6228	7371	54645	77569	95220
Delta	2						4	50	160				1068	1063	1068	10	15	15		3094	2337		326	376	1363	4837	4270
Thornton							11	45	115				31	25	25	5	10	15		1601	1211		117	138	658	2718	2579
Lodi	381	480	540	84	105	130	96	80	370	834	987	1356	1479	1202	1494	674	1243	1638		2184	1653		1653	1956	10456	17515	20922
Lockeford	6	5	10			5		25	100			5	53	50	55	3	15	25		1338	1010		130	151	354	1973	1841
Linden	9	10	10	3	5	5		5	10	1		5	110	105	106	6	10	15		1712	1295		155	183	317	2227	1894
Escalon	25	30	30	7	10	10		15	25	74	85	125	153	140	160	27	50	75		1512	1143		299	353	984	3296	3406
Ripon	13	20	25	4	5	10	10	15	25	88	95	125	168	160	175	39	60	85		858	647		296	351	1593	3224	3463
Manteca	72	91	96	40	50	55	23	60	150	258	305	425	4010	3587	3673	293	535	695		1535	1161		953	1122	7944	11590	13286
Tracy	76	100	105	32	40	45	35	100	250	292	355	480	3816	3745	3911	233	425	570		2417	1823		1418	1675	8546	14300	15883
TOTALS	1994	2493	2789	1132	1424	1544	724	1550	3387	4180	4982	6905	23698	22887	24434	5913	10586	14251		17579	13285		11575	13676	86860	89249	102768

<sup>1</sup>Peak employment refers to employment for the month of September. Note: 1970 Total Employment does not include Agriculture and Others.





*Chapter III*

## THE PLAN CONCEPT





## THE PLAN CONCEPT

An essential task in planning for the future of San Joaquin County is to develop a concept of the internal structure of the County. In reviewing the historical development of San Joaquin County and examining the interrelationships which exist between urban communities and the rural areas that surround them, as well as among the urban communities themselves, a pattern emerges in which each of the various communities assumes a particular function within the overall framework of the County. This concept of an urban-rural structure is embodied within the General Plan and provides the basis for the development of its related elements.

## THE URBAN-RURAL STRUCTURE

The urban-rural structure provides the basic framework for guiding growth within the County. Development policies contained in the Land Use/Circulation Element are based upon this structure. Thus, the degree to which these policies are followed will determine the extent to which the structure of the County is maintained and the overall goals are realized.

The urban portion of this structure consists of three levels of Urban Centers: Regional, Subregional and Intermediate. The rural portion consists of Rural Centers and outlying Agricultural Areas, interspersed with occasional Rural Residential Areas.

The communities in San Joaquin County have been analyzed as to their function and grouped accordingly within the structure (Map 8). This function can be described in terms of the opportunities for living, working, shopping, recreation, education, and cultural expression provided by the activities and facilities present within the community. The analysis was based on the opportunities now provided by existing activities and facilities as well as future opportunities which could be provided through expansion of activities and facilities in accordance with expected changes in growth patterns over the planning period.

Based upon this analysis, Figure 21 indicates the typical range of activities and facilities to be found within the Urban and Rural Centers.

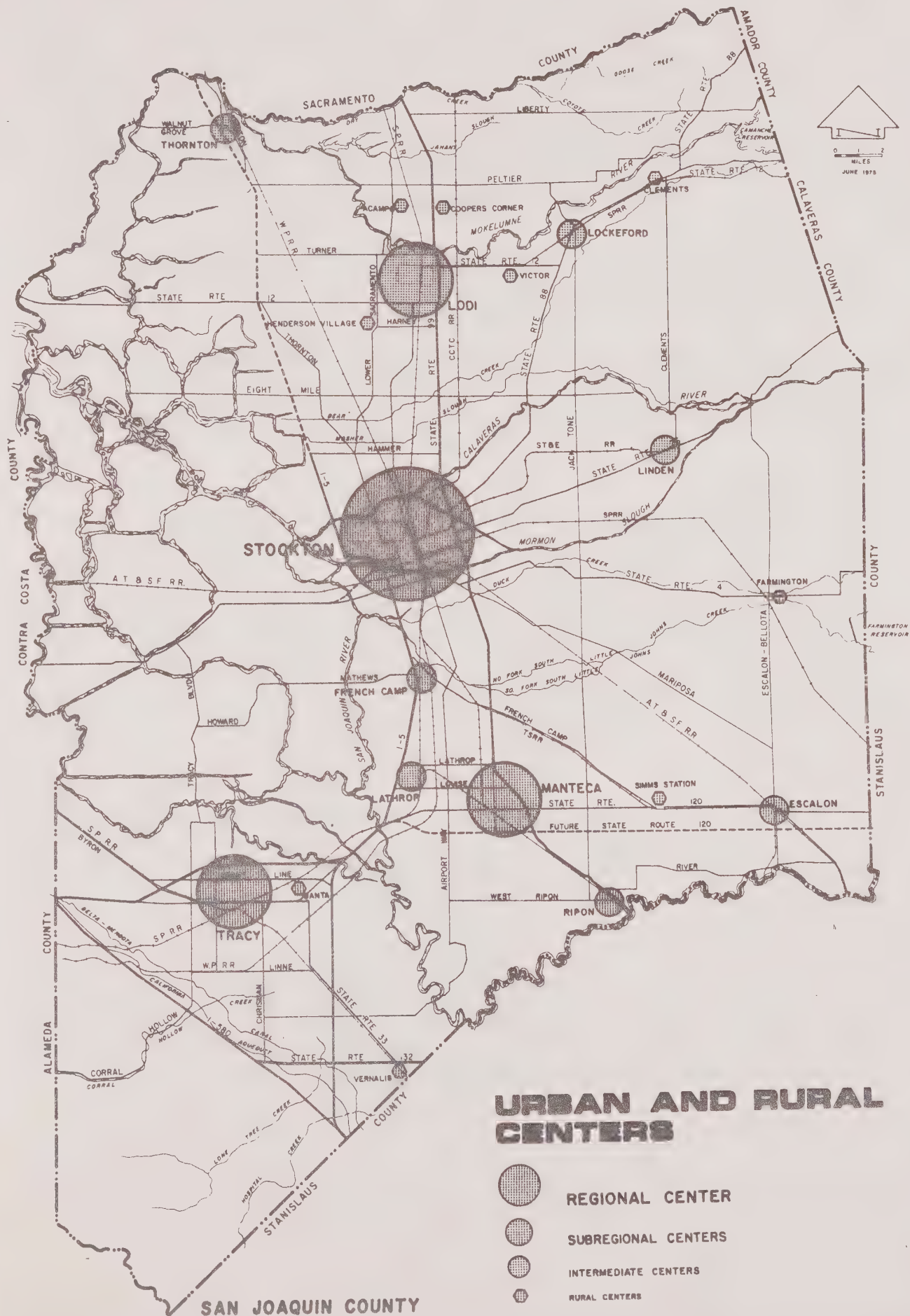
### URBAN CENTERS

Urban Centers are defined here as concentrations of urban development, each with a separate identity, which provide a range of living, working, shopping, educational, recreational, and cultural opportunities commensurate with their size and function. In this context, urban development refers to the establishment of residential, commercial, industrial, institutional and other related land uses in combination with the provision of basic municipal services such as water, sewer, drainage, police and fire protection.

FIGURE 21  
CHARACTERISTICS OF URBAN AND RURAL CENTERS

CHARACTERISTICS	REGIONAL CENTER	SUBREGIONAL CENTER	INTERMEDIATE CENTER	RURAL CENTER
Population Range	over 50,000	10,000 - 50,000	1,000 - 10,000	under 1,000
Economic Activities	-convention center -financial center -wholesaling and distribution center -largest concentration of employment within the County -greatest concentration of selective shopping establishments	-minor distribution center -major employment center for portion of County -limited concentration of selective shopping establishments	-minor employment center in agriculture or agriculturally-oriented industry -community or neighborhood shopping district providing convenience goods and personal services	-employment principally in agriculture and related industry -cluster of establishments or a general store providing farm supplies and convenience goods
Governmental Activities	-regional governmental center; state branch offices	-municipal governmental activities; county branch services	-municipal government Community Services District, or County Service Area	-Community Services District, County Service Area, or other special district
Public Services & Facilities	-municipal or community water supply, sewage treatment, storm drainage, solid waste disposal, police surveillance, fire protection			-fire station in the vicinity
Educational Facilities	-university -junior college -technical schools	-high school; junior college extension courses	-high school or middle school	-elementary school in the vicinity
Cultural Facilities	-exhibition halls -museums and galleries -symphony and theater groups	-civic auditorium -city or branch libraries	-community center	-dependent upon proximity to larger centers
Recreational Facilities	-special use (zoo, ice rink) facilities -regional or county-wide park	-city or area-wide park	-community or neighborhood park	-small park

<sup>1</sup>The typical range of activities & facilities represented in this table is descriptive only and not necessarily for planning purposes.





The Regional Center (Stockton) is the principal focus of all economic, governmental, cultural, and educational activities in the County Area of Influence, providing a wider range, higher concentration, and larger volume of these activities than any other center within the area.

The Subregional Center (Lodi, Manteca, Tracy) is the nucleus of economic, governmental, cultural, and educational activities for a major portion of the County Area of Influence, but does not include the diversity and intensity of activities found in the Regional Center.

An Intermediate Center (Lockeford, Thornton, Linden, Lathrop, French Camp, Escalon, Ripon) offers a limited number of activities to serve the more frequent needs of residents of the center and surrounding area, relying on the Regional and Subregional Centers for variety and specialization.

#### RURAL CENTERS

Rural Centers (Clements, Farmington, Acampo, Henderson Village, Vernalis, Coopers Corner, Banta, Victor, and Simms Station) are generally small settlements which have historically served as a focus of activity for the surrounding agricultural areas. As such, there is minimal commercial and residential development, although there may be occasional agriculturally-related industries. Rural Centers cannot accommodate urban development since they do not provide both water and sewer systems. Rural Centers provide only those activities necessary to meet the most frequent needs of residents in the immediate and outlying agricultural areas, who are dependent upon the larger Urban Centers for a wider range of activities.

#### AGRICULTURAL AREAS

Agricultural areas include those lands which are capable of supporting a wide variety of crop or livestock production and which are expected to be maintained in agricultural use during the planning period. Also included are marginal lands which are not suitable for urban-type development for various reasons and hence are best maintained in agriculture or conserved for other uses.

#### RURAL RESIDENTIAL AREAS

Rural Residential areas are concentrations of homesites on small acreages in rural agricultural areas. The typical area has developed over a period of many years to the extent that use of individual parcels is limited to family food production or the pursuit of agricultural hobbies. These areas provide an alternate living environment for those people who desire a rural country setting.



*Chapter IV*

**LAND USE**



## LAND USE

The Land Use/Circulation Element is an analysis of the needs of the present and projected population. Its main concern is the determination of the future location of land uses and the relation of these uses to the circulation pattern and transportation system, the provision of public facilities and services, and various environmental constraints. The Element thus serves as a guide for development within San Joaquin County.

### EXISTING LAND USE

The term land use refers to the distribution of all forms of human activities over the land. Thus, the expected distribution of population becomes a significant factor in determining the future land use pattern. Historically, locations of land use were established for the most part by individual choices and arbitrary governmental decisions not necessarily related to any overall understanding of areas of need or orderly development. Therefore, the existing distribution of land uses may not in all cases reflect a desirable land use pattern. Nonetheless, the future land use pattern will substantially reflect and evolve from the existing land use pattern. In this sense, the land use plan for San Joaquin County has been developed using a "controlled trend" approach.

Existing generalized land use in the County is shown on Map 9. Data on the acreage consumed by various land uses are contained in Figure 22 (Planning Area) and Figure 23 (Urban and Rural Centers).



FIGURE 22

EXISTING LAND USE BY PLANNING AREA<sup>1,2</sup>

Planning Area	Residential	Commercial	Industrial	Parks/ Recreation	Public/ Quasi-Public	Vacant	Roads/ Streets <sup>3</sup>	Agriculture	Water <sup>3</sup>	TOTAL AREA
Thornton	289	18	34	42	218	1,398	672	67,386	7,162	77,219
Lodi <sup>2</sup>	893	66	178	462	485	1,191	4,321	67,299	1,415	81,310
Lockeford/Clements	537	27	82	5	198	335	1,877	117,990	1,571	122,622
Linden	175	12	104	20	172	199	1,937	86,850	934	90,403
Stockton	10,370	1,669	1,720	1,172	4,140	5,077	11,045	53,802	1,366	90,361
Escalon	1,417	51	43	18	98	360	3,385	57,874	314	63,560
Ripon	350	30	128	105	144	166	442	22,210	200	23,775
Manteca/Lathrop	2,052	308	208	350	1,714	1,629	3,262	58,401	664	68,588
Tracy	2,125	119	1,519	1,550	7,051	1,493	7,642	151,787	2,368	175,654
South Delta	41	6	1	702	2,221	2,200	1,256	113,265	11,013	130,705
County <sup>2</sup>	18,249	2,306	4,017	4,426	16,441	14,048	35,838	796,864	27,007	924,196

<sup>1</sup>Data in Net Acres by Parcel Size as of 1974.

<sup>2</sup>Excludes Lodi Urbanized Area.

<sup>3</sup>Acreage estimated for roads and streets and water areas.

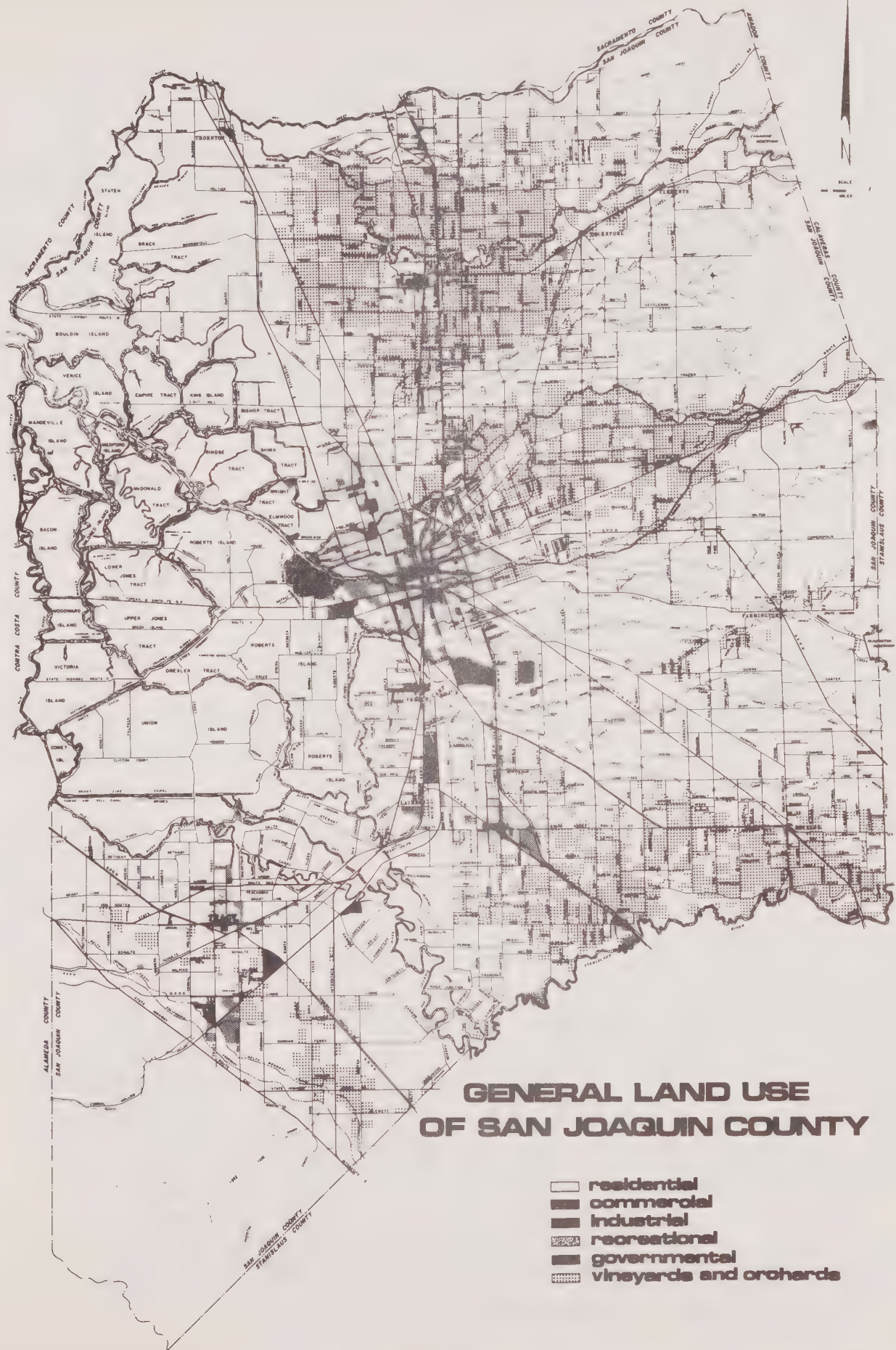


FIGURE 23

EXISTING LAND USE IN UNINCORPORATED URBAN AND RURAL CENTERS <sup>1</sup>									
Center	Residential	Commercial	Industrial	Parks/ Recreation	Public/ Quasi-Public	Roads/ Streets <sup>2</sup>	Vacant	Agriculture	TOTAL <sup>3</sup>
URBAN CENTERS									
Thornton	59	3	43	0	18	31	72	246	472
Lockeford	95	14	53	0	25	47	37	592	863
Linden	47	12	11	0	50	31	11	125	287
Lathrop	306	7	364	8	702	178	230	2270	4065
French Camp	101	13	66	0	130	106	233	607	1256
RURAL CENTERS									
Acampo	4	2	9	1	1	5	3	27	52
Coopers Corner	22	2	1	0	11	9	2	13	60
Henderson Village	33	1	0	0	2	9	5	8	58
Victor	14	2	13	0	3	8	7	11	58
Clements	12	5	1	0	3	5	10	97	133
Farmington	12	1	0	0	14	7	9	10	53
Sims Station	10	1	2	0	1	3	2	13	32
Banta	28	5	2	9	13	14	2	7	80
Vernalis	12	1	14	0	0	5	7	76	115

<sup>1</sup>Data in Net Acres by Parcel Size as of 1974.

<sup>2</sup>Acreage estimated for roads and streets.

<sup>3</sup>Surveyed areas represent growth areas as shown on plan maps of Land Use/Circulation Element to 1995

NOTE: Data for Incorporated Centers available at San Joaquin County Planning Department.

## AGRICULTURE

Agriculture and related activities constitute a major portion of the economic base of San Joaquin County.

The gross value of agricultural production in 1974 was over 476 million dollars, representing one of the more significant contributions to the County's economy (Figure 24 ). San Joaquin County usually ranks among the top five counties in the nation in terms of gross value of agricultural production. Agricultural products from this County have established an image and reputation for the County which is recognized the world over. A major objective in planning for land utilization in an agriculturally prominent county is to conserve and enhance this important segment of the economy and to protect the resources upon which it is based.

FIGURE 24

TRENDS IN GROSS VALUE <sup>1</sup> OF AGRICULTURAL PRODUCTION						
CATEGORY	1969	1970	1971	1972	1973	1974
Field Crops	49.5	52.6	64.5	71.3	97.5	133.0
Vegetable Crops	55.2	51.3	59.6	70.7	64.8	90.5
Fruit and Nut Crops	70.6	63.3	78.5	78.2	132.3	129.5
Seed Crops	4.1	3.9	2.9	2.8	5.5	10.9
Nursery Products	2.7	2.0	2.7	2.5	4.3	8.6
Livestock and Poultry	16.6	15.8	14.5	19.9	26.2	15.9
Apiary Products	.3	.2	.4	.4	.4	.5
Livestock and Poultry Products	50.0	51.2	49.1	55.4	75.0	87.5
TOTAL	249.0	240.3	272.2	301.1	406.2	476.5

<sup>1</sup>Millions of dollars.

Source: San Joaquin County Agricultural Commissioner, Annual Reports, 1969-74.



## LAND CAPABILITY

San Joaquin County contains large areas of highly productive soils. Information supplied by the U.S. Soil Conservation Service is utilized as a basis for identifying the permanently more productive agricultural lands in the county. The U.S. Soil Conservation Service rates agricultural land in eight land classes in accordance with those physical properties that determine the capability of the land to sustain production of food and fiber. Some of the physical properties considered are: slope, soil quality, erosion, and other permanent physical features that would limit the use of the land or increase the risks of damage.

The arable lands are grouped in Classes I through IV, according to their potentialities and limitations for sustained production of the common cultivated crops not requiring specialized site conditioning or treatment. Non-arable lands--land unsuitable for long-term sustained use for cultivated crops--are grouped in Classes V through VII according to their potentialities and limitations for the production of permanent vegetation and according to the relative risks of soil damage if mismanaged (Figure 25).

There are approximately 1,440 square miles of land and water in San Joaquin County. Excluding water and existing non-agriculturally developed areas, almost 1,150 square miles, or 80 percent can be considered cultivable (Classes I through IV). Of this total, over 1,000 square miles, or about 88 percent of the cultivable land, can be further classified as prime agricultural land (Map 10) according to the following criteria established by the County for planning purposes:

- All land rated 80-100 in the Storie Index Rating System
- All land rated as Class I and Class II in the U.S. Soil Conservation Service Land Use Capability Classification
- All land rated as Class III with the capability units of  $s^4$ ,  $s^5$ ,  $w^2$ ,  $w^5$ ,  $w^6$  &  $w^{10}$  in the U.S. Soil Conservation Service Land Use Capability Classification

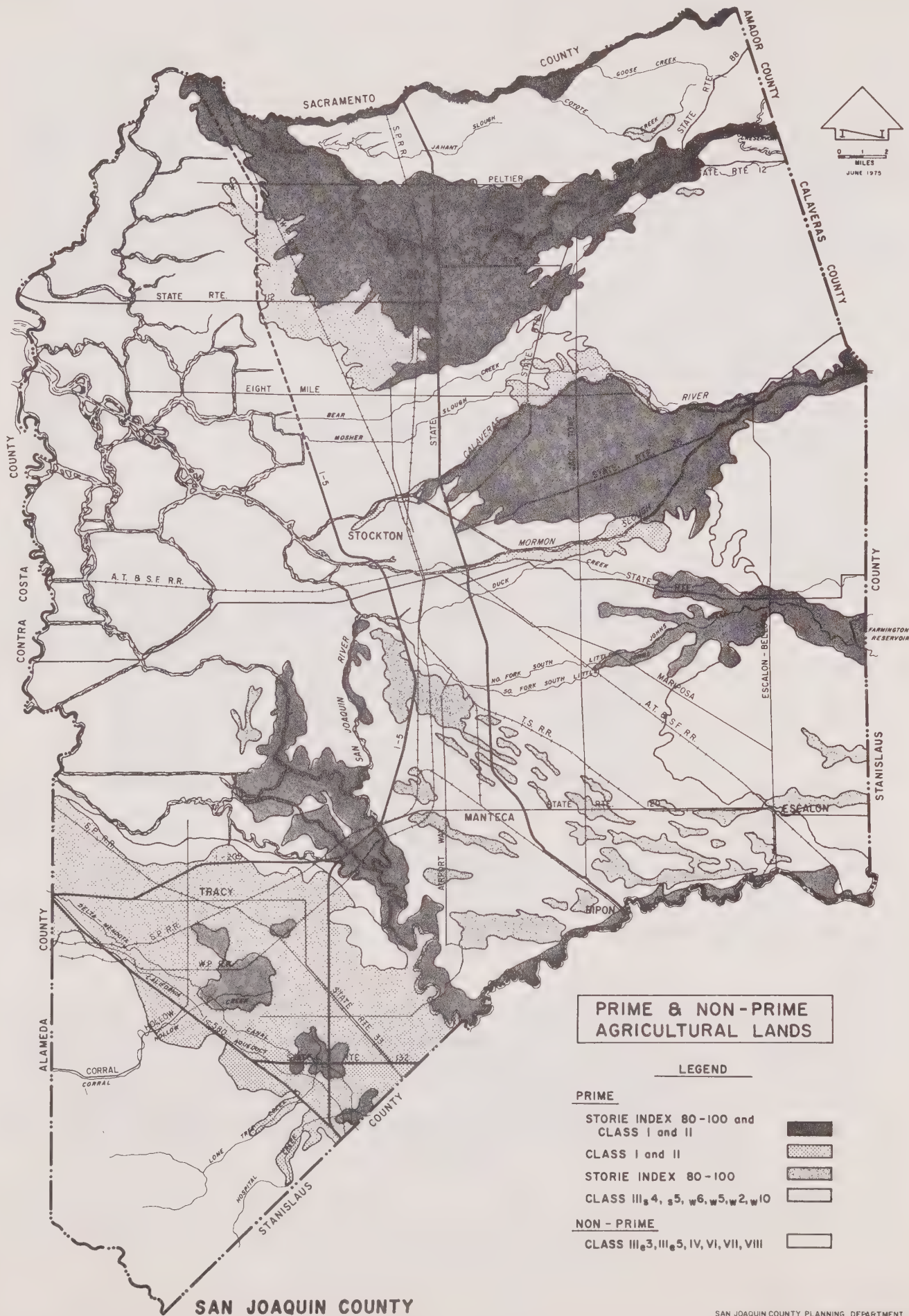
Included within this definition of prime agricultural land are most of the irrigable lands in the County (Map 11). All of these areas are capable of growing crops which provide a relatively high gross return per acre.

## LAND USE TRENDS

All of these agricultural areas are not actually being cultivated or grazed, since some land must be devoted to supporting uses (Figure 26). However, additional population will increase the demand for conversion of agricultural land, not only for development in and around urban centers, but also for residential sites in rural areas. Over the next twenty years, an increase of over 100,000 persons is forecast for San Joaquin County.

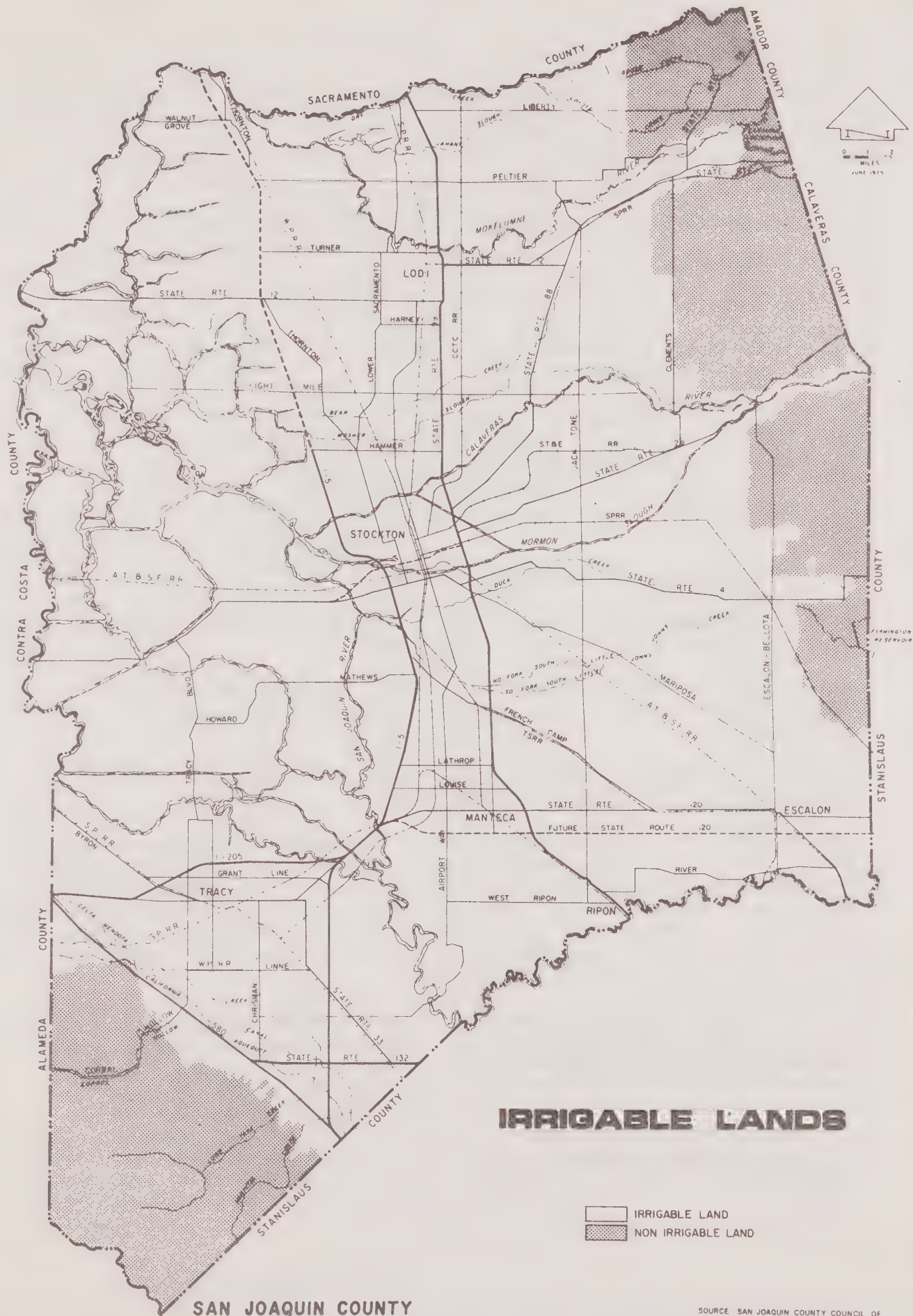
FIGURE 25

LAND CLASS AND CAPABILITY	
CLASS	CAPABILITY
Class I  Class II	Land able to produce most locally adaptable crops and its ability to produce is only slightly limited by any characteristic of the soil itself.
Class IIIs <sup>4</sup> Class IIIs <sup>5</sup> Class IIIw <sup>6</sup> Class IIIw <sup>5</sup> Class IIIw <sup>2</sup> Class IIIw <sup>10</sup>	This land has soils with severe limitations that reduce the choice of crops and/or require special conservation practices, but with proper management, rehabilitation, and conservation practices are capable of growing vegetable, fruit and nut crops, and specialty crops that are climatically adaptable to the area.
Class IIIe <sup>3</sup> Class IIIe <sup>5</sup> Class IV	This land has severe limitations which make it most suitable for growing field crops, pasture, and range use.
Class V(none in County) Class VI Class VII	This land is suitable only for range and pasture.
Class VIII	This land can be utilized for wildlife, recreation, or watershed
Source: U.S. Department of Agriculture Soil Conservation Service Report and General Soil Map, San Joaquin County, California, March 1967.	



SAN JOAQUIN COUNTY PLANNING DEPARTMENT  
 SOURCE: SAN JOAQUIN COUNTY COUNCIL OF  
 GOVERNMENTS OPEN SPACE ELEMENT 5/72





# IRRIGABLE LANDS

- IRRIGABLE LAND
- NON IRRIGABLE LAND

SOURCE: SAN JOAQUIN COUNTY COUNCIL OF GOVERNMENTS OPEN SPACE ELEMENT 6/72  
 SAN JOAQUIN COUNTY PLANNING DEPARTMENT



FIGURE 26

AGRICULTURAL LAND USE 1969	
Acres in Farms <sup>1</sup>	876,371
Total Cropland	537,933
Harvested Cropland	434,666
Cropland Used Only for Pasture or Grazing	74,465
All Other Cropland <sup>2</sup>	28,802
Woodland (including woodland pasture)	903
All Other Land <sup>3</sup>	337,535

<sup>1</sup>Not necessarily under cultivation or in grazing.

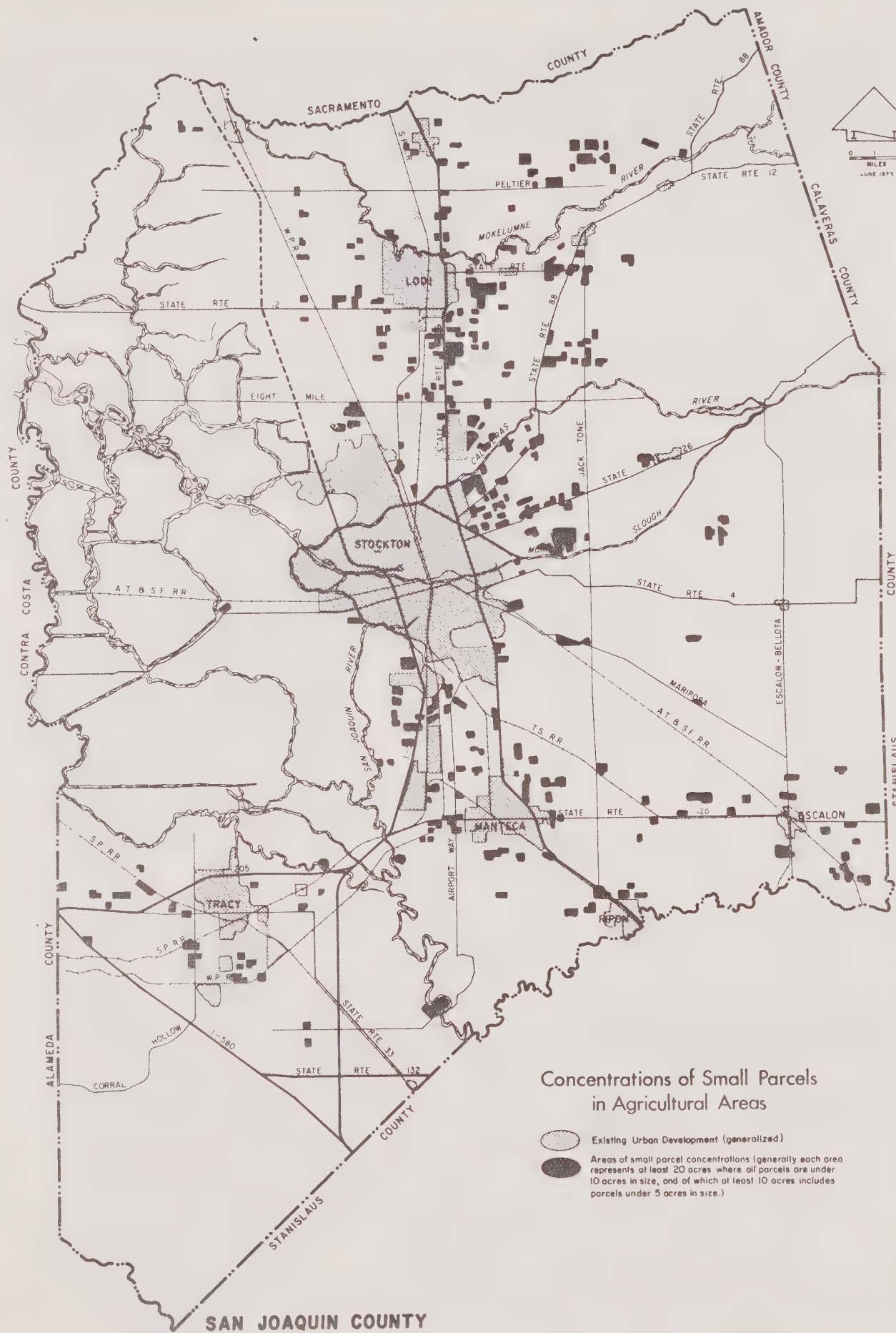
<sup>2</sup>Includes cropland used for soil-improvement crops, crop failure, cultivated summer fallow, and idle cropland.

<sup>3</sup>Includes pasture land other than cropland and woodland pasture, rangeland, and land in house lots, barn lots, ponds, roads, wasteland, etc.

Source: U.S. Bureau of the Census, Census of Agriculture, 1969.

Unfortunately, because of the pattern of historical settlement in the County, most of the existing urban centers are located on and surround by highly productive soils. Thus, urban expansion, even if contiguous to existing development, will result in some reduction of land suitable for agricultural production. However, past growth policies have permitted scattered urban development to occur, resulting in a premature reduction of agricultural land, especially on the fringe areas (Map 12).

Previous land development practices in rural areas, especially the division of land procedure when used for the establishment of non-farm homesites, have resulted in the fragmentation of agricultural land into units no longer economically viable for commercial agricultural production (Figure 27). Agricultural zoning which permits small parcel sizes has contributed to this reduction in the economic viability of agricultural land (Map 13). The variety of uses permitted with agricultural zoning has allowed the establishment of residential development and isolated commercial and industrial uses in rural areas. The introduction of incompatible non-farm uses into agricultural areas often



results in higher tax assessments on nearby farmlands and may restrict essential farming operations, such as spraying and fertilizing. This is especially true when residential uses are scattered throughout agricultural areas. In addition, lack of attention to plant diseases on residential parcels can cause loss of crops on adjoining farmlands.

FIGURE 27

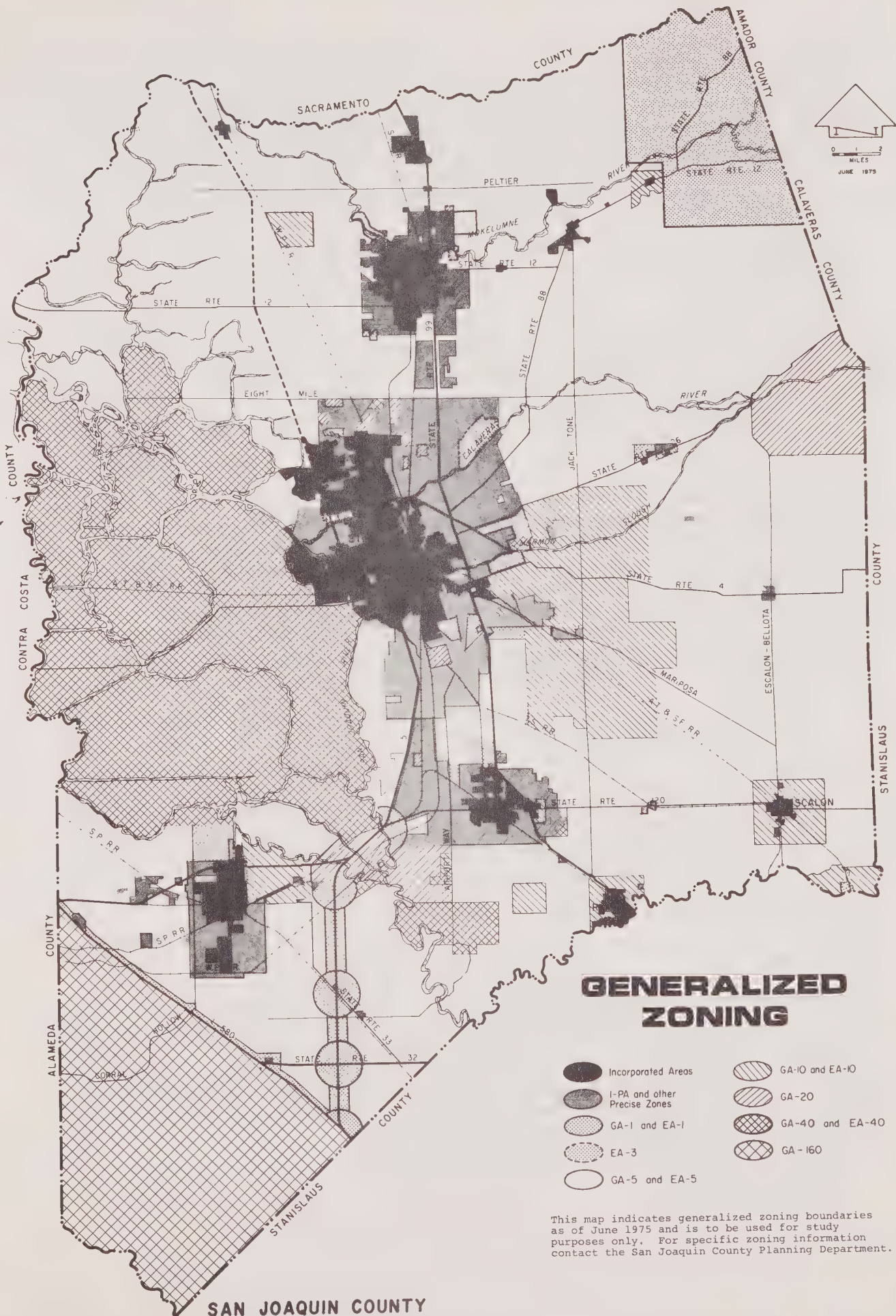
SIZE OF FARMS IN  
SAN JOAQUIN COUNTY  
1969

Source: 1969 Census of Agriculture

Acres	ALL FARMS		CLASS 1-5 FARMS <sup>1</sup>	
	Number of Farms	Total Acres	Number of Farms	Total Acres
1 to 9	654	3,133	221	1,134
10 to 49	2,011	48,275	1,485	38,631
50 to 69	330	19,121	293	17,016
70 to 99	280	22,742	262	21,299
100 to 139	249	28,636	242	27,820
140 to 179	152	23,763	140	21,825
180 to 219	99	19,540	97	19,140
220 to 259	87	20,634	85	20,174
260 to 499	265	93,668	261	92,354
500 to 999	179	121,907	177	120,461
1000 to 1999	83	113,936	82	112,374
2000+	64	361,016	63	354,943
TOTALS	4,453	876,371	3,408	847,171

<sup>1</sup>Class 1-5 farms are those for which the sale of farm products amounts to at least \$2,500/year.







## PRESERVATION OF AGRICULTURAL LAND

The discouragement of premature and unnecessary conversion of prime agricultural land to urban development and other incompatible uses is a matter of public interest and concern. Such discouragement would be of benefit to urban residents because discontinuous urban development patterns unnecessarily increase the cost of facilities and services to the community. Present scattered urban development in fringe and rural areas has resulted in the creation of numerous special districts to provide minimal urban services.

### The Williamson Act

The California Land Conservation Act (Williamson Act) of 1965, as amended, provides one means of encouragement for the preservation of agricultural land. The basic provision of this land conservation program can be summarized as follows:

- Agricultural land to be included in the conservation program must first be designated an agricultural preserve by the Board of Supervisors
- Land within the preserve may be restricted to agricultural uses and uses compatible with agriculture by means of contracts between the owner and the County.
- Scenic and open space areas not suitable for agriculture may be restricted to non-urban development by means of scenic easements granted to the County by the owner.
- Land subject to enforceable restrictions, as defined by the Revenue and Taxation Code, may be assessed only on the basis of its value for those uses permitted by law, and sales data are not to be used when valuing the land.

Participating counties receive subventions from the State in order to partially offset losses in tax revenue incurred from the placement of lands under contract.

The Williamson Act has been implemented in San Joaquin County, with the first agricultural preserves being established by the Board of Supervisors in 1969. Adopted policies regarding the establishment of preserves and eligibility for contracts are excerpted below ( 7 ).

#### AGRICULTURAL PRESERVE POLICIES

##### General Plan

The establishment and enlargement of agricultural preserves shall be in accord with those areas shown as agriculture, recreation, foothill pasture, or conservation areas on the latest adopted County General Plan. In areas proposed by the General Plan for other uses and for areas in or near urban service districts, preserves may be established and enlarged only when findings show that development is not expected and is not warranted within the time period of an agricultural contract.

(cont. Agricultural preserve policies)

Preserve Classifications

Class A: The minimum size necessary for the establishment of a Class A Preserve shall be 100 acres contiguous land. Basic uses shall be agricultural or compatible uses. Soils type shall be prime agricultural land as defined by Section 51201 of the Government Code.

Class B: The minimum size necessary to establish a Class B Preserve shall be 600 acres contiguous land. Basic uses shall consist of agricultural or compatible uses. All classes of soils type shall be permitted.

Class C: The minimum size necessary for a Class C Preserve shall be 100 acres contiguous land. Basic uses shall consist of agricultural or compatible uses. Soils type shall be prime agricultural land as defined by Section 51201 of the Government Code if the proposed preserve is less than 600 acres. If the proposed preserve is over 600 acres, all soil classes shall be eligible.

Class A and B Preserves may be established by the County of San Joaquin upon the request of the property owner(s). In Class A Preserves, the applicant shall be required to submit proof of minimum income if this basis is to be used in lieu of soils type. Class C Preserves may be established by the County of San Joaquin on the initiative of the Board of Supervisors without requests from property owners within the proposed preserve covering all the land within the proposed preserve provided, however, that sufficient interest in the agricultural preserve program has been demonstrated to the Board of Supervisors by the property owners within the proposed preserve.

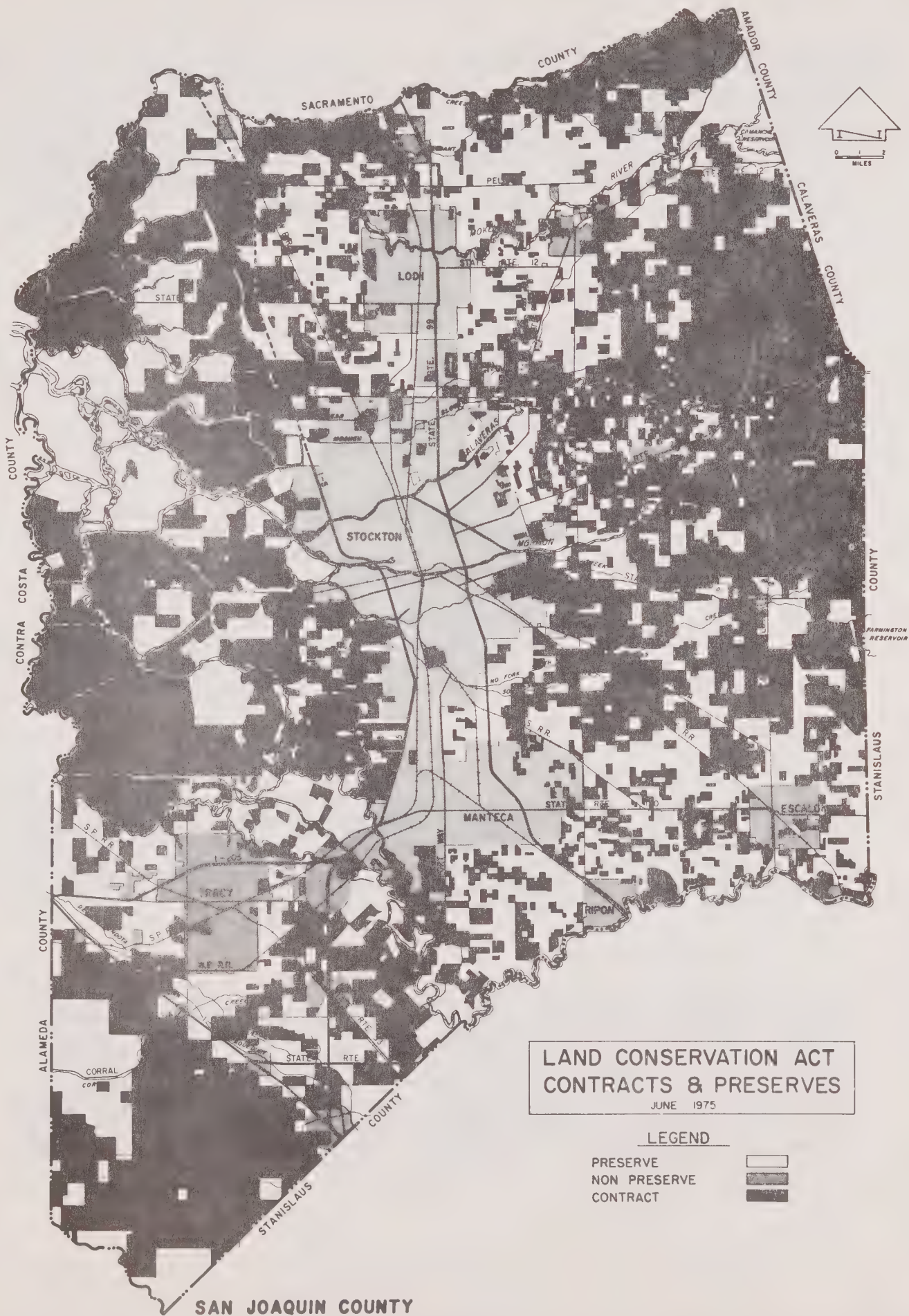
Preserve Size

The minimum size necessary for the establishment of an agricultural preserve shall be contiguous land in multiple ownership or under the same ownership. When an individual request for preserve status is being considered for land which cannot be logically annexed to an existing preserve, a study of the area shall be conducted to determine whether preserve status is warranted and what the boundaries of the proposed preserve should be to fulfill size and other preserve requirements.

Minimum Zoning Classification

All land defined as prime land which is in preserve or for which preserve status has been sought shall be rezoned to GA-40; all non-prime land in preserve or for which preserve status has been sought shall be rezoned to GA-160. Less restrictive zoning shall be applied to prime and non-prime land only when it can be shown by the applicant(s) that such a departure is warranted by the unique nature of the crop produced, the intensity of the agricultural activity pursued, and the economic viability of the proposed minimum property size. All requests for the establishment or enlargement





(cont. Agricultural preserve policies)

of an agricultural preserve which do not meet the above criteria shall be accompanied by petition of the property owner to reclassify the property to the appropriate zoning classification. A zoning request required for an agricultural preserve shall be processed concurrently with the preserve application and shall become effective on the same day.

Minimum Property Size Eligible For Contract

The minimum size parcel within an established preserve which will qualify for a contract restricting use shall be five (5) acres, and if less than twenty (20) acres, must be contiguous to land on which a contract has been executed. In no case shall there be less than twenty (20) contiguous acres under contract. If this situation exists, the County shall issue a notice of nonrenewal for all affected contracts.

At the present time, there are approximately 765,000 acres within agricultural preserves. Of this total, over 427,000 acres were under contract as of March 14, 1975 (Map 14).

WATER AND IRRIGATION

The availability and use of water for irrigation purposes is an important factor in evaluating future agricultural land use. It is estimated that slightly over 447,000 acres were irrigated in 1969 (9) (Map 15) (Figure 28). It is possible that most of the County considered irrigable (Map 11) could be irrigated by the end of the planning period, if adequate water supplies are available (see Chapter on Environmental Constraints).

Another factor involves the discharge of agricultural wastewaters. The San Joaquin River and the Delta both contain poor quality irrigation water due in part to such discharges. An agricultural drain for collecting irrigation wastewater from the Central Valley has been partially constructed.

FIGURE 28

MAP 15	AGRICULTURAL WATER DISTRICTS IN SAN JOAQUIN COUNTY
1.	Woodbridge Irrigation District (including the Woodbridge Water Users Conservation District).
2.	North San Joaquin Water Conservation District
3.	Stockton-Wast Water District
4.	Central San Joaquin Water Conservation District
5.	Oakdale Irrigation District
6.	South San Joaquin Irrigation District
7.	Banta-Carbona Irrigation District
8.	West Stanislaus Irrigation District
9.	Hospital Irrigation District
10.	Naglee-Burk Irrigation District
11.	Plainview Irrigation District
12.	West Side Irrigation District
13.	Byron-Bethany Irrigation District





## AGRICULTURAL WATER DISTRICTS

SAN JOAQUIN COUNTY PLANNING DEPARTMENT

SOURCE: SAN JOAQUIN COUNTY COUNCIL OF GOVERNMENTS  
COMPREHENSIVE WATER AND SEWERAGE STUDY JUNE 1972

MAP NO. 15

## RESIDENTIAL

The General Plan is concerned with the quality, character, and extent of residential areas within the County. The Land Use/Circulation Element prescribes the locational patterns and density standards for each type of residential area within the various communities and also establishes specific objectives concerning residential developments. The quality of our residential environment will depend upon the consideration given to the needs and desires of the people who live here, as well as the concern shown for the natural characteristics of the land.

### RESIDENTIAL DENSITY STANDARDS

Density is used in planning to establish the number of dwelling units and persons to be served in proposed residential areas. This provides a basis for estimating needed public services and, as the General Plan is implemented with specific plans and zoning, the proposed densities become a controlling factor in decision-making. Appropriate public services and facilities are planned to provide for the anticipated population. Once established, the location and extent of these services and facilities cannot readily be changed. Consequently, once the proposed densities are determined, specific decisions in land use should conform to these densities in order that planned public and private facilities will adequately and efficiently serve the projected population for the area (Figure 29). For the purposes of the General Plan, density is expressed as the average number of persons or dwelling units per gross acre of residential land. A gross acre includes land taken up by local streets.

### URBAN RESIDENTIAL AREAS

Because residential development is a major user of land in urbanized areas, as well as a significant factor in the location of other types of development, residential growth patterns will to a large extent determine the form of urban growth. While portions of existing urban areas will be able to accommodate some of the increase in population on lands bypassed by the leapfrogging practices of past decades, some expansion of these urban areas onto present agricultural lands will be necessary. There is a need to guide the development of existing and future urban residential areas and to provide for the orderly distribution of population within them.

#### Neighborhood-Community Structure

The concept of the neighborhood-community structure within urban areas provides a guide for the efficient correlation of public investments in services and facilities with the functional needs of the residents. The principal features of this structure can be described as follows:

- The neighborhood is planned and developed as a cohesive unit (usually containing from 3,000 to 5,000 people) with the density established encouraging a variety of housing types while protecting public investments in services and facilities.



FIGURE 29

RESIDENTIAL DENSITY STANDARDS			
Type of Residential Area	Dwelling Units/ Gross Acre	Population/ Gross Acre <sup>1</sup>	Typical Development
Rural Residential <sup>2</sup>	0-.5	0-2	clusters of single-dwelling unit home-sites on small acreages
Suburban Density Residential	1-2	4-7	large-lot single-dwelling unit subdivisions
Low Density Residential	2-6	7-15	single-dwelling unit subdivisions with occasional duplexes; planned unit developments
Medium Density Residential	6-15	15-35	older single-dwelling unit neighborhoods; duplexes, triplexes, fourplexes, and garden apartments; mobilehome parks
High Density Residential	15-	35-	garden apartments; medium-and high-rise apartment buildings
<sup>1</sup> Actual population may vary from this range depending upon the average number of persons per dwelling unit. <sup>2</sup> Specific density to be determined with adoption of Rural Residential Zone consistent with General Plan policies.			

- Sites are reserved or acquired for a centrally located neighborhood park. This park is combined with the elementary school or neighborhood center wherever appropriate in order that the two can function as the neighborhood center for cultural, educational and recreational activities, and be within easy walking distance of every home in the neighborhood, preferably no farther than one-half mile.
- Each neighborhood contains an internal street pattern designed to discourage through traffic, with major streets preferably bounding the neighborhood. Walking distance is utilized as the fundamental scale for development.

- A neighborhood shopping center is encouraged to an extent and in a location that will adequately meet the needs of the residents of the neighborhood for convenience goods and services and which is designed so as to enhance its compatibility with the living area.
- The community would be a cohesive unit encompassing from three to five neighborhoods.
- Each community would be served by a high school or a junior high school in a central or convenient location. Wherever possible the school is combined with a community park in order to more effectively serve as the community center for persons of all ages living in the community.
- A community shopping center is encouraged and facilitated in a central location to provide a wider range of goods and services not provided by the neighborhood centers.

#### Densities of Urban Residential Areas

Orderly distribution of the population within urban residential areas is provided for through the establishment of residential land use categories based on densities of dwelling units. All four categories require basic services such as water, sewer, and drainage systems.

High Density Residential. This category identifies those areas with a planned density of over 15 dwelling units per gross acre, indicating a population density of over 35 persons per gross acre. These areas typically consist of predominantly garden apartments or medium or high-rise apartment buildings, although a planned unit development might also include single-unit dwellings and townhouses. These areas are found near central business districts, along major transportation corridors, and around major commercial centers.

Medium Density Residential. This category identifies those areas with a planned density of 6 to 15 dwelling units per gross acre, indicating a population density ranging from 15 to 35 persons per gross acre. These areas typically consist of older neighborhoods with single units or newer areas with duplexes, triplexes, and fourplexes. A wider variety of dwelling types could be achieved through use of planned unit developments. These areas are located in the central portions of incorporated areas, along major arterials, and near community commercial centers. Some locations may be appropriate for mobilehome parks.

Low Density Residential. This category identifies those areas with a planned density of 2 to 6 dwelling units per gross acre, indicating a population density ranging from 7 to 15 persons per gross acre. These areas include typical single-dwelling unit subdivisions with occasional duplexes, although multi-unit dwellings would be possible within planned unit developments. These areas occupy the major portion of urban residential land.

Suburban Density Residential. This category identifies those areas with a planned density of 1 to 2 dwelling units per gross acre, indicating a population density ranging from 4 to 7 persons per gross acre. Typical development consists of large-lot single-unit subdivisions with the lot sizes ranging from one-third acre to an acre. These areas are usually found on what is or was



the fringe of urbanized areas. Although this type of residential development in the past did not necessitate the provision of community water and/or sewer systems, future subdivisions at this density will require the provision of both systems.

#### RURAL RESIDENTIAL AREAS

In some areas of rural San Joaquin County, divisions of land have occurred to the extent that many parcels can no longer be considered by themselves as economic units for agricultural production. These areas typically contain scattered residential development on small acreages interspersed with and surrounded by agricultural land. Many parcels in these areas remain vacant and unused, too small or too close to existing residences for efficient agricultural operations, but not required or in a suitable location for any type of urban development. The concept of rural residential areas has been incorporated into the Land Use/Circulation Element of the General Plan essentially to recognize existing land use patterns; however, it is also designed to accomplish the following objectives:

- 1) Provide a wider range of residential environments by allowing single-unit dwellings on small acreages for that segment of the population desiring to live in a rural setting and engage in either family food production or the keeping of domestic animals.
- 2) Maximize utilization of land by recognizing those areas where land division practices have resulted in the creation of numerous small parcels such that agriculture is no longer economically viable on a commercial basis.

Rural Residential. This category identifies those areas with a planned density of one dwelling unit per 2 or more gross acres, indicating a population density of less than 2 persons per gross acre. Existing development typically consists of scattered homes on parcels ranging from 1 to 5 acres; however, current state requirements dealing with land area needed for individual wells and septic tanks suggest that two or more acres will be desirable for future development. These areas are available for residential development to that segment of the population desiring to live in a rural agricultural setting. No community water or sewer systems are anticipated, although provisions for drainage will be required. The supporting services typically found in urban residential areas are not generally available, nor are they encouraged.

## COMMERCIAL

The projected addition of over 100,000 residents to the County's population by 1995 will foster not only a greater number of commercial establishments, but also a greater variety as well, since a market usually diversifies as it expands. Whatever the number of new and expanded establishments, it is obvious that there will be an increase in the demand for new commercial centers as well as additional commercial acreage within and adjacent to existing centers. This demand poses a challenge to those responsible for guiding the County's growth. Commercial areas must be planned so as to provide commercial interests with adequate and suitable business sites to serve the needs of an expanding population.

### LOCATION OF EXISTING COMMERCIAL DEVELOPMENT

Commercial activity in San Joaquin County is concentrated in the urban centers. The majority of the commercial acreage is located within the Stockton area, with most of the remaining commercial acreage located within the smaller centers. The other commercial uses are found clustered along major highways, principally to serve the needs of travelers, or scattered through rural areas to serve local needs of agricultural communities.

#### Stockton Area

Because of its relatively large population and central location between Sacramento and Modesto, Stockton supports a great number and variety of commercial establishments which attract customers from a wide geographical area. This area includes most of San Joaquin County and some areas beyond, particularly those communities to the east in the Sierra Nevada foothills.

The Central Business District has traditionally been recognized as the dominant center of commercial activity for both the metropolitan and regional areas; however, Stockton has witnessed the shift of a significant portion of the commercial activity in its downtown area to other areas of the city, particularly those north of the Calaveras River. As a result, a large percentage of the commercial acreage within the Stockton area is located outside of the central business district.

This shift in activity has furthered the continuing trend of strip commercial development along most of the major streets leading into the city or circling the central business district. Although a sizeable portion of new commercial development has occurred within commercially designated areas on the General Plan, it has not grouped into compact shopping centers as much as it has into compact strips. Most of the establishments lining these streets serve larger areas than the immediate neighborhoods, often the entire community. Several of the larger shopping centers along Pacific Avenue function collectively as a regional shopping area.

There are other commercial areas dispersed throughout the metropolitan area. They are either clusters of businesses within residential areas or scattered individual uses along major streets. Many of these uses, although not within

commercially designated areas on the General Plan map, still conform with the basic policies since their primary purpose is to serve local needs of a neighborhood. Other uses, including numerous isolated establishments in unincorporated residential areas, are often unrelated to the needs of their surrounding neighborhoods. Wholesale commercial uses are generally located along main railroad tracks and are often intermixed with light industrial uses.

#### Lodi Area

Almost all of the commercial acreage in the area is within the City of Lodi. The majority are either concentrated in the central business district or located along State Route 99 Business Route. There are several outlying shopping centers which provide frequently needed goods and services for residents of nearby neighborhoods. There is an established professional office corridor along West Lodi Avenue, while additional strip development is appearing along Highway 12 and Lodi Avenue.

#### Tracy Area

Much of the commercial activity is located in the central business district, although new commercial uses are perpetuating the strip development already existing along several thoroughfares, notably Eleventh Street and Grant Line Road. There appears to be increasing demand for additional convenience shopping areas to serve newer residential neighborhoods.

#### Manteca Area

Most of the commercial activity is located either in the central business district or along North Main Street and Yosemite Avenue, where strip development is occurring. Strip development along Yosemite Avenue extends to Austin Road on the east and to Airport Way on the west. Strip development along North Main extends to Lathrop Road.

#### Ripon Area

Almost all of the commercial activity is located in a small, well-defined central business district, with few businesses located within residential areas. There are some commercial uses scattered along the frontage road east of State Route 99.

#### Escalon Area

Most of the commercial activity is located within the central business district, which is oriented along the Santa Fe Railroad tracks. Other commercial uses are scattered along State Route 120 which winds through the town passing north of the central business district.

#### Other Urban Centers

In most of these small unincorporated communities, the commercial center has not yet taken a specific form. All of their commercial uses are generally located along the highway frontages. These strips of commercial development often



serve the needs of both highway travelers and the community. As these communities grow and expand, either new commercial centers or expansion away from current highway locations will be necessary to accommodate increased local shopping and parking requirements. The creation of community plans for these unincorporated areas should provide some guidelines for development.

#### PROBLEMS IN EXISTING COMMERCIAL DEVELOPMENT

Commercial development if uncontrolled has a tendency to locate along major roads in ribbon-type developments or in poorly structured clusters, making shopping by the customer most inconvenient and development of surrounding land extremely difficult. In San Joaquin County, one of the major problems concerning commercial development is this continuing pattern of strip development. In most areas, it has been mainly a case of developing along the line of least resistance and greatest vehicular activity.

##### Disadvantages of Strip Development

Strip commercial development in many instances disrupts circulation and conflicts with other land uses. It generally interferes with the smooth flow of traffic as each establishment often has its own access points from the main roadway, and is inconvenient for the customer if more than one purchase is required. The stripping of streets with commercial uses may also contribute to the blighting of adjoining residential areas. Individual decisions on the development of numerous small parcels typically creates an overbuilt situation before the crowding becomes obvious enough and action can be taken to halt further development. The results are a large demand for street parking in nearby residential areas, increases taxes due to adjacent commercial uses, and such nuisances as glaring lighting and noise from delivery trucks.

##### Advantages of Compact Development

On the other hand, the grouping of commercial uses within compact areas provides the customer with a greater variety of stores and more convenient access. The size of the trade area usually determines the type, number, and size of commercial establishments, while the circulation pattern is the major determinant of the location. Commercial centers are generally located along major thoroughfares and contain adequate on-site parking within a relatively short walk to the stores. Such commercial centers are usually well designed and compatible with surrounding land uses. The grouping of stores comprises a functional unit where servicing facilities and truck access is separated from customer circulation while parking areas are designed to provide adjoining land uses some measure of protection from noise, lighting, and other objectionable features.

#### TYPES OF COMMERCIAL AREAS

Fundamental to any analysis of commercial activities is recognition that all business enterprises are not similar and do not have identical locational requirements. Differences go beyond the variety of goods and services offered for sale. The general characteristics that determine the best location for an

establishment include the size and type of trading area required, the degree to which the enterprise is pedestrian-oriented, the parking and loading requirements, and the relation of the business to the circulation system. All of these characteristics together define the function of a commercial activity. To achieve the most desirable relationships between commercial activities and all other aspects of community life, commercial areas should be designed and located according to their particular functions. This suggests the need for some classification of commercial areas in which similar uses, or those having a similar function are grouped. The following classification is used for planning purposes.

#### Rural Center Commercial Areas

Rural Center Commercial areas provide those goods and services needed frequently by residents of rural centers and the surrounding areas. This would include the convenience goods and services typically found in an urban neighborhood shopping area, as well as other goods and services which cater primarily to the needs of the agricultural areas.

#### Neighborhood Shopping Areas

Neighborhood shopping areas provide convenience goods and services for daily consumption and frequent purchase to satisfy the most frequent needs of the surrounding residential area. The dominant store is usually a supermarket; other establishments might include shoe repair, drugs, laundry, and hardware.

#### Community Shopping Areas

Community shopping areas provide a fairly broad selection of goods and services which are needed frequently, but not daily, and thus serve a trading area larger than the neighborhood. A major variety store or junior department store is often the major generator; however, there is less variety and fewer speciality outlets than in the regional center.

#### Regional Shopping Areas

Regional shopping areas provide the widest possible variety of goods and services available within the trading area. Included are department, apparel, furniture, and appliance stores, all of which offer merchandise that is infrequently purchased and intended for long-term consumption, indicating a significant amount of comparison shopping and customer interchange. The larger the supporting population within the trading area, the greater will be the number and variety of stores, and hence the attraction.

#### Central Business Districts

These areas are generally the main concentration of commercial activity within the urban centers. In addition to containing a variety of retail commercial establishments, these areas often provide financial, governmental, or other public services and attractions. The range of goods and services available is dependent upon the size of the urban center and its trading area.

### Administrative and Professional Office Areas

These areas provide for those commercial activities which are conducted in office-type facilities and deal primarily in services rather than goods. The major use of land consists of administrative and professional offices which provide financial, insurance, real estate, legal, medical, dental, educational, and other public services.

### General Retail and Service Areas

These general commercial areas contain a wide variety of establishments which provide an assortment of completely dissimilar goods and services, but which are alike and compatible in several significant aspects. Each establishment is a self-generative business in which the goods are infrequently purchased and often the sole purpose of the shopping trip. Examples include automobile-oriented sales and services and building supply firms.

### Highway Service Areas

These areas provide services which are oriented almost exclusively to the needs of travelers on freeways. The typical area consists of a cluster of commercial establishments including gas stations, motels and restaurants. Because of their orientation, all of these uses are considered to be mutually compatible. The clustering of these uses at interchanges eliminates the necessity for through traffic to enter onto the internal circulation system and reduces conflicts with local traffic movements.

### Wholesale-Distributive Areas

These types of commercial activities involve the buying, handling, and selling of goods before shipment to retail business. This kind of transaction does not require customer visits to the business location itself so there is negligible automobile traffic and pedestrian movement. However, these activities do generate a considerable amount of truck traffic, require space for storage and loading, and often need rail access. Because of these aspects, wholesale uses are generally incompatible with most other commercial activities and more nearly compatible with light industrial uses.

### DESIGNATION OF COMMERCIAL AREAS

Three categories of commercial areas are indicated on Land Use/Circulation Area Plan Maps. Retail Commercial includes those areas described above as Rural Center Commercial, Community Shopping, Regional Shopping, Central Business Districts, and Administrative and Professional Office (also appropriate in High Density Residential areas); Neighborhood Shopping is accommodated within residential areas. Commercial Service includes General Retail and Service areas as well as certain light wholesaling uses; however, most Wholesale and Distributive activities are more appropriate in industrial areas. Highway Service is devoted exclusively to Highway Service uses.



## INDUSTRIAL

The General Plan for San Joaquin County recognizes the widespread desire for a more diversified, Industrialized economy. Diversified Industrial development would substantially assist in stabilizing the economic base of the County. The County has traditionally suffered from the perils inherent in one dominant, and highly seasonal, source of employment--agriculture. More industry, and especially more non-agriculturally oriented industry, would moderate the seasonal fluctuations and also relieve the economy from the threats of periodic ebbs and flows.

### ATTRACTION OF INDUSTRY

An Industrial Development Profile (13) prepared for San Joaquin County included an analysis of the types of manufacturing industries the County could expect to attract. It indicated four major groups in which the County is considered to be in a favorable position:

- 1) Those industries in which there is a market gap on the West Coast;
- 2) Those industries reflecting emerging trends in which firm locational patterns have not yet been established;
- 3) Those industries using air cargo extensively and which could be attracted by the superior facilities at Stockton Metropolitan Airport;
- 4) Those industries already operating in California whose growth rate suggests a need for additional branch plant capacity elsewhere in the State.

Although an advantageous location and favorable community attitudes provide a sound foundation for industrial growth, this in itself is not enough. There is intensive competition between various areas in the State and country to attract industry. It should be noted that this County is similar to many other areas in that there is an abundance of land designated for industrial purposes, but a very limited number of fully-serviced sites available for sale or lease to prospective industry. If the County is to meet this competition it must provide a variety of well-located and properly-improved industrial sites which will fit the needs of a wide spectrum of suitable industries. It is considered essential that there be an inventory of properties with installed utilities, access roads or master site plans available for review by prospective industrial occupants.

### LOCATION OF INDUSTRY

Industry may not be a total asset to the community unless its location is well planned and its financial and environmental impacts are favorable. The careless placing or selection of an industry may adversely affect the future development of an area as well as limit the proper development of the industry. City and County governments have direct responsibility for protecting the investments of each firm through the assurance of stability in an area. Industrial management wants planning and zoning policies which are based on integrity. They want assurance that the selected sites, and the investments they represent, will be subject to the same consideration and protection accorded residential and other uses.

The General Plan seeks to provide for the land use needs of industries as well as the protection these industries demand. Efforts have been made in the revision of the Land Use/Circulation Element to identify appropriate industrial areas. A thorough analysis of industrial needs, integrated with all other land use considerations, will promote a land use structure which is attractive to a variety of industries and, at the same time, achieves the overall goals for sound community development.

#### TYPES OF INDUSTRIAL AREAS

Apart from the differences and similarities in products manufactured, there are almost infinite variations in production standards, management policies and methods of operation which identify types of industries. It is these characteristics which will determine the most desirable setting for each given plant, and it is these characteristics which should guide the community in its efforts to locate industrial sites.

The use of performance standards helps to group industries in order to better assess their needs and locational requirements. With a knowledge of the characteristics which prevail within each group of industries, the proper relationship of industrial areas to each other and all other land uses will be facilitated. General types of industrial uses are briefly outlined in the following sections.

##### Restricted Light Industrial Areas

These are the "good neighbor" industries which do not permit the escape of dust, smoke, noise, or other operational by-products from the confines of the building itself, and this can be suitably located almost anywhere within an Urban Center. Characteristically, much forethought is given to architectural features and landscaping to further enhance compatibility with adjacent land uses. Industrial parks usually attract these types of industries by providing mutually exclusive zoning or covenants for protection against less restricted industrial uses.

##### Light Industrial Areas

This grouping of industries includes those firms which can control their obnoxious effects within the boundaries of the site. This control enables them to locate on medium-size parcels without their being obtrusive or objectionable to neighboring uses. The standards applied to this group of industries allows locations within urban centers. Mutually exclusive zoning is also a desired feature.

##### Heavy Industrial Areas

Heavy industries are those in which the cost of pollution control devices beyond those required to meet minimum standards is prohibitive in view of the economics of their operations. Some obnoxious characteristics such as noise may be unavoidable, although almost all are limited to the area of the site. These firms prefer to seek large parcels of ground on or just outside the

fringes of urbanized areas. The space between the plant itself and adjacent uses lessens the effects of the operation, and the fringe locations reduce the conflicts with the urban environment.

#### Open Industrial Areas

While most industrial activities occur within buildings and require open space only for landscaping, parking, loading or some limited storage, there are open industrial uses in which most operations are carried on out-of-doors, or in which the operation depends on large outdoor space for storage of raw materials and finished products, or for the servicing of equipment, trucks, and other heavy vehicles. These types of industrial uses require special controls to ensure compatibility with other land uses, to eliminate hazards, and to prevent blight. Included in this category are extractive industries, and some manufacturing, repair, and storage operations such as asphalt batch plants, concrete mixing plants, heavy machinery and equipment repair and storage, and dismantling and wrecking yards.

#### Wholesaling, Warehousing, Transportation Facilities

It should be noted that there are certain commercial and other non-manufacturing uses, including wholesaling, warehousing, and transportation facilities, which because of their operational aspects, are generally incompatible with other commercial activities and more nearly compatible with industrial uses. These aspects include a large volume of truck traffic, considerable amount of space for storage and/or loading, and often the need for rail access. Depending upon which of these or other aspects are dominant, and also the degree to which varying levels of performance standards can be met, uses within this group might be compatible with those in any one of the above mentioned industrial groups.

#### DESIGNATION OF INDUSTRIAL AREAS

For the purposes of mapping appropriate areas in the Land Use/Circulation Element, two categories of industrial areas are indicated. Limited Industrial areas would be suitable for those types of industries described earlier as Restricted Light Industrial or Light Industrial, as well as those Wholesaling, Warehousing, and Transportation uses which can meet established performance standards. General Industrial areas are suitable for those types of industries described earlier as Heavy Industrial or Open Industrial, as well as other Wholesaling, Warehousing and Transportation uses.

#### ACCESS TO TRANSPORTATION FACILITIES

With its balanced multi-modal transportation system featuring highway, rail, water and air facilities, the County has significant potential as a warehousing and distribution center. Each of these modes also possesses distinct advantages for attracting various other types of industry. However, to eliminate conflicts with traffic originating from other land use areas, and to provide maximum convenience of movement to and from industrial operations, all industrial areas should be located in close proximity to either Freeways



or Arterial streets. Within the industrial area, direct access to each site should be from local service streets specifically designed and constructed to serve in industrial need. Short industrial Collector streets should connect the industrial area to the Freeways and Arterials.

#### Highway and Rail

With two major north-south highways and three major railroads passing through the County, there are a number of sites which could be considered for development as highway- or rail-oriented industrial parks. Those sites with good highways or interchange access have great potential for industrial development, especially truck-oriented industries, whether engaged in manufacturing, distribution or warehousing operations. Most industrialists also prefer sites with railroad access, whether they use the railroad or not. All railroad frontage, however, cannot be considered as potential industrial land as this would include an excessive amount of land, as well as involving major land use conflicts, principally with agriculture.

Because of its excellent location in regard to major highway routes, it appears that truck-oriented industries will be an important part of the County's industrial future. Several factors account for this:

- The County enjoys a good West Coast market orientation;
- The advent of the interstate highway system has freed manufacturing from dependence on rail networks;
- The local interstate highway network is very attractive.

#### Water and Air

Special consideration is also warranted by the Port of Stockton and Stockton Metropolitan Airport. The Port gives Stockton a noticeable advantage over most other California cities and may attract those industries relying on the relatively cheap movement of bulk raw materials or finished products. The Airport could be a potential generator of light industrial, wholesale, and distributive activities.

A comprehensive land use plan is being developed for the entire Port property. At the Airport, efforts are underway to develop an industrial park area oriented towards air-truck transportation. This also affords an opportunity to expand industries associated with the operation of the Airport. Completion of the access road connecting State Route 99 and Airport Way has opened up additional land for development. Improved access to Interstate Route 5 should stimulate further development.

#### AVAILABILITY OF LAND

How much land? Although there have been numerous studies analyzing industrial needs and potential in the County, including employment porjections by type of industry, there is little accurate basis for determining the various types or number of firms which will actually expand or locate here within the twenty-year planning period. Consequently, enough land must be set aside to anticipate

possible needs and, at the same time, give prospective occupants a choice of a variety of areas.

In terms of long-range needs, the amount of land will be influenced by three anticipated trends. The first relates to population, which is expected to increase by over 100,000 within the next twenty years. The second trend concerns the manufacturing labor force. As manufacturing becomes relatively more important to the County's economy, it is anticipated that the percentage of the labor force employed in industry will also increase. Thirdly, employee densities will probably decrease from their present levels. This means, simply, that industries will require more land per employee to maintain the same levels of production. This follows from the greater demands for employee parking, a shift to more mechanized operations, and additional land utilized to meet the required performance standards.

## PUBLIC AND QUASI-PUBLIC

Although the various land uses collectively referred to in this section as Public and Quasi-Public serve many different functions, they share a common purpose of providing for community needs. Also, most of these lands are publicly owned. Figure 30 indicates the distribution of publicly-owned lands by type of governmental jurisdiction. Thus, utilization of these lands is of specific concern to the public.

The decisions regarding their use generally are made either directly by the public or indirectly by their elected or appointed representatives. However, political jurisdiction over these lands is distributed at different levels of government as well as among various agencies on each level. Many public uses serve a specific area and hence must be conveniently located with respect to the area served. The location of public uses often become vital considerations in the location of other land uses. It is very important that planning for the utilization of public lands be coordinated among all levels of government concerned.

At this time, there is no adopted Comprehensive Public Facilities and Services Element of the General Plan. The outline in Figure 31 suggests those areas which should be addressed in the preparation of such an element. It is recognized that some of these areas are either sufficiently unique in character or broad in scope so as to require singular studies or constitute the subject of a separate element. In fact, this is the case for many of the areas listed. For the purposes of this text, those areas designated with an asterisk are further discussed in the sections on Recreation and Public Services and Utilities. Bibliographies at the end of this section and related sections list those studies or plans which have been prepared by various governmental agencies concerning the above subject areas.

### GOVERNMENTAL FACILITIES

These land uses include facilities of Federal, State, County, Municipal, and special purpose government, except for those related to public utilities and services. Major facilities are discussed later.

#### Administrative Complexes

Most of the major complexes are located in downtown Stockton in the vicinity of the municipal civic center. This includes the Federal office building, State office building, and County Courthouse, as well as Stockton City Hall. Exceptions include the County's Hazelton Avenue complex and the Calif. Dept. of Transportation both located in southeast Stockton, and the Main Post Office located in northeast Stockton. In the subregional centers, of Lodi, Manteca, and Tracy, Federal, State and County branch offices are generally located in the vicinity of municipal governmental centers.



FIGURE 30

PUBLICLY-OWNED LANDS	
GOVERNMENTAL JURISDICTION	ACRES
FEDERAL	8,924
Rough and Ready Island	1,351
Sharpe Army Depot	676
Tracy Defense Depot	385*
Atomic Energy Commission	5,860
Other	652
STATE	1,490
California Youth Authority	950*
Deuel Vocational Institution	133
Other	407
COUNTY	2,338
Stockton Metropolitan Airport	542
San Joaquin General Hospital	631
Other	1,165
MUNICIPAL	2,629
Stockton	1,179
Lodi	274
Tracy	672
Manteca	273
Ripon	125
Escalon	106
SCHOOL DISTRICTS	1,746
Public School Districts	1,424
San Joaquin Delta College	322
Other	-
SPECIAL DISTRICTS	2,835
Stockton Port District	1,057
Reclamation Districts	524
Irrigation Districts	554
Drainage Districts	265
Water and Sanitary Districts	151
Other	42
MISCELLANEOUS	242
TOTAL	18,627 acres
*Not included in TOTAL; acreage obtained from Assessor parcel books	
SOURCE: San Joaquin County Office of the Assessor, Computer Printout of Publicly-Owned Land, May 10, 1975.	

FIGURE 31

OUTLINE OF PUBLIC FACILITIES AND SERVICES
Governmental Facilities Administrative Complexes Correctional Facilities Military Installations
Institutional Facilities Hospitals Cemeteries
Educational Facilities Elementary and Secondary School Systems Vocational Training Facilities Colleges and Universities
Cultural Facilities Library Systems Assembly Buildings and Grounds Community Centers
*Parks and Recreational Facilities
*Communication Facilities
*Utilities and Services Water Supply Sewage Treatment Drainage Systems Solid Waste Disposal Fire Protection Police Protection Energy Transmission
*See sections on Recreation and Public Services and Utilities

#### Correctional Facilities

Two major State facilities are located in the County. Deuel Vocational Institution east of Tracy is a maximum security facility within the Department of Prisons. The California Youth Authority operates a regional complex south-east of Stockton which accommodates its current juvenile population in three separate centers, although there is sufficient land for expansion to twelve centers.

## Military Installations

The Federal government maintains three major military installations in the County. The Naval Communications Center, which provides communications support for ships in the Pacific Ocean, and related warehousing facilities are located on Rough and Ready Island in Stockton. Sharpe Army Depot near Lathrop is the largest supply and maintenance depot on the West Coast, although recent activity is not as great as during the late 1960's and is expected to decrease slightly in the future. Tracy Defense Depot, southeast of Tracy, is a major supply center for military installations and other federal agencies in the western United State and Pacific regions. A fourth installation, operated by the Atomic Energy Commission in the foothills southwest of Tracy, is utilized as an explosives research and testing facility.

## INSTITUTIONAL FACILITIES

Institutional uses include hospitals, cemeteries, churches, and other religious, welfare, or charitable organizations. Hospitals and cemeteries are further discussed below.

### Hospitals

Several major health care facilities are located in the Stockton Metropolitan Area. Stockton State Hospital is a regional center for treatment and care of the mentally retarded and mentally disabled. Medical facilities include Dameron Hospital, St. Joseph's Hospital and San Joaquin County General Hospital. The Lodi area is served by Lodi Memorial Hospital and Lodi Community Hospital. Tracy and Manteca also have community hospitals. A comprehensive health care facilities plan for an eight-county area including San Joaquin County has been prepared by the regional health planning agency. (15)

### Cemeteries

Cemeteries in the County range from small family plots to large community facilities with mausoleums. Within urban areas, cemeteries serve an important secondary function by providing open space. The larger facilities include Stockton Rural Cemetery, San Joaquin Catholic Cemetery, Cherokee Memorial Park, Tracy Public Cemetery, and Parkview Cemetery. Several of the cemeteries in the County are of historical interest.

## EDUCATIONAL FACILITIES

These include both public and private elementary and secondary school systems, adult education and vocational training facilities, colleges and universities.

### Elementary and Secondary School Systems

There are seven unified school districts in the County. Tracy Joint Union High School serves eight elementary school districts within the County as well as another in Alameda County. Three elementary school districts in the northern part of the County are served by the Galt Joint Union High School in Sacramento





County. Three square miles in the southeastern part of the County are within the Valley Home School District. Map 16 indicates district boundaries as well as existing schools and proposed sites.

At the present time, proposals for realignment of school district boundaries in North Stockton are under consideration. The three districts involved are Stockton Unified, Lincoln Unified, and Lodi Unified. If approved, the new boundaries would result in more compact, contiguous districts which would more closely conform to the population centers that they serve.

There are several private and parochial schools in the County. Secondary schools include St. Mary's High School in Stockton, Lodi Academy (Seventh-Day Adventist), and Ripon Christian High School.

#### Vocational Training Facilities

Stockton, Lincoln, Lodi, Manteca, and Tracy School Districts all have continuation schools and provide for adult education. The Woodruff Regional Occupational Center located in downtown Stockton serves the entire County.

#### Colleges and Universities

Aside from various business and technical schools, there are two institutions of higher learning in the County.

San Joaquin Delta College is a two-year community college within the state system. The service area of the district encompasses all school districts in the County (except Ripon Unified) as well as Galt Joint Union High School District and River Delta Unified School District in Sacramento and Solano Counties. The new campus in North Stockton is nearing completion and will be able to accommodate 10,000 students. Recently revised enrollment projections indicate this capacity will not be reached until near the end of the planning period (16). The District presently owns property north of Manteca; however, discussion of the need for a second campus has been postponed due to the more moderate increase in enrollment.

The University of Pacific provides four-year programs and graduate instruction in several schools and colleges. Current enrollment is over 5,000 students. The main campus is located in Stockton and should be adequate for future growth, with room for expansion to the north across the Calaveras River, and to the south on the recently acquired old campus of San Joaquin Delta College.

#### CULTURAL FACILITIES

These facilities include library systems, auditoriums, exhibition halls, galleries, museums, theatres for the performing arts, stadiums, festival grounds, and community centers.





## Library Systems

The Stockton-San Joaquin County Public Library system includes all of the County except the City of Lodi, which supports its own municipal public library. However, all residents have access to both of the systems through mutual agreements. Map 17 is adapted from the Library Element adopted by the San Joaquin County Council of Governments and indicates existing and proposed facilities. For further information on the levels of service provided by branch libraries and bookmobiles, refer to the above report (17).

## Assembly Buildings and Grounds

In Stockton, the Civic Auditorium and Stockton Junior High School Auditorium are most often utilized for major attractions and conventions. Performing arts groups also utilize the Civic Theatre and auditoriums on the college campuses. A new 1,500 seat theatre is now under construction on the new campus of San Joaquin Delta College which will provide a permanent home for several performing arts groups and concert series. There has also been discussion of including a theatre in the proposed Civic Center Complex along with a sports arena and exhibition hall.

There are several art galleries and historical museums in the County. Pioneer Museum and Haggin Galleries in Stockton's Victory Park are of regional significance. There is also a historical museum in Micke Grove Park. For information on historical landmarks and archaeological sites, refer to the section on Historic Preservation.

Major special event or festival grounds include the San Joaquin County Fairgrounds in south Stockton and the Grape Festival grounds in Lodi, both with several exhibition halls. Major stadiums include the Grape Bowl in Lodi and Billy Hebert Field in Oak Park and Memorial Stadium (36,000 seat capacity) on the University of the Pacific campus, both in Stockton.

## Community Centers

These facilities provide a wide variety of cultural and recreational activities and are generally located in conjunction with community parks or junior high schools. In some instances, they serve as sub-branch or outreach library facilities. A plan for community centers within the Stockton Metropolitan Area was developed in 1967 (18) and revised as part of the Parks and Recreation Plan prepared by the City of Stockton in 1972 (14).

## RECREATION

The demand for recreational activities and facilities is expected to increase significantly during the planning period, resulting in recreation becoming a more important factor in the County's consideration in land use planning.<sup>1</sup> Meeting the recreational needs and desires of the current and projected population of the County, as well as those of people who visit the County, is mainly the responsibility of the public sector, although it also provides opportunities for private interest and investment.

This section is divided into two parts: parks and associated recreational facilities and historical preservation. Cultural, educational and major sports facilities are discussed in the Public/Quasi-Public section of this chapter. Commercial entertainment and recreational facilities such as bowling alleys, movie theaters, and amusement parks are considered along with other commercial uses, which are discussed in a previous section of this chapter.

### PARKS AND RECREATIONAL FACILITIES

San Joaquin County has a number of recreational assets which are important to local residents who seek recreational activities closer to home because of fuel shortages; increasingly high costs of travel and entertainment; lack of transportation; most leisure time being after work hours and on weekends; a desire to be outdoors; and fewer at-home activities.

The County's rivers, lakes, reservoirs and approximately 320 miles of Delta waterways (6), are used for swimming, boating, floating, water skiing, sight-seeing, wildlife observation, fishing and hunting. These assets also attract visitors from surrounding areas and as far away as Nevada and southern California. A warm climate contributes to the County's allure, which is also enhanced by its scenic geographic location, attractions such as game birds, animals, oak groves, and the aesthetic appeal of the open agricultural areas.

Although there is a large amount of open space in San Joaquin County, it is generally in agricultural or other private use and is not open for recreational purposes; therefore, adequate public recreational areas and access is important. However, at the present time there is lack of public access to waterways, which has resulted in conflicts between recreationists and property owners.

A desire and need to preserve wildlife and vegetative resources (such as oak groves) in as near a natural state as possible has been demonstrated. There also exists a need for interesting and enjoyable hiking, bicycling and equestrian trails, hunting areas and places close to urban areas for challenging motor-cycling, safe swimming and pursuit of quiet. Camping facilities in close proximity to highway service areas or in recreational areas are also very lacking in the County.

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<sup>1</sup>The need and demand for recreation in the County, particularly outdoors, is more thoroughly explored in the Open Space and Conservation Elements of the COG and County, and in the County Recreation Element (1,2,3,5). The Recreation Element will be revised next year.

Existing public recreational facilities are provided by the State, County (including special districts) and the cities. The typical facilities and service areas of the various types of parks are described in Figure 32. State, regional and community parks, and publicly owned special use facilities are described in Figure 33 and their locations shown on Map 18. Most of those facilities developed by the County (excluding community parks in unincorporated urban areas) are regional in nature, and like the State facilities, the location

FIGURE 32

TYPICAL FACILITIES AND SERVICE AREAS Parks and Special Use Facilities		
Type of Park	Typical Facilities	Service Area
<u>Neighborhood</u> Park (inc. playlots, scenic squares, parkways, and in some cases community center buildings)	play apparatus open grass area picnic facilities ball diamonds	immediate neighborhood or in rural center
<u>Community</u> Park (larger than neighborhood)	play apparatus open grass area picnic facilities ball diamonds community center basketball and tennis courts	many neighborhoods or entire community
<u>Regional</u> <sup>1</sup> Park	varies w/facility, usually has picnic and open area	many communities, city, county and beyond
<u>Special Use</u> <sup>1</sup> May be public, however most private recreational investment is in this area	varies	many communities, city, county and beyond

<sup>1</sup>In San Joaquin County these facilities are generally developed in areas where there are existing resources, (i.e., Micke Grove, Harmony Grove Church) or are of such a specialized nature that many people from a number of areas can be served by one facility (i.e., rifle range, angling access, etc.).



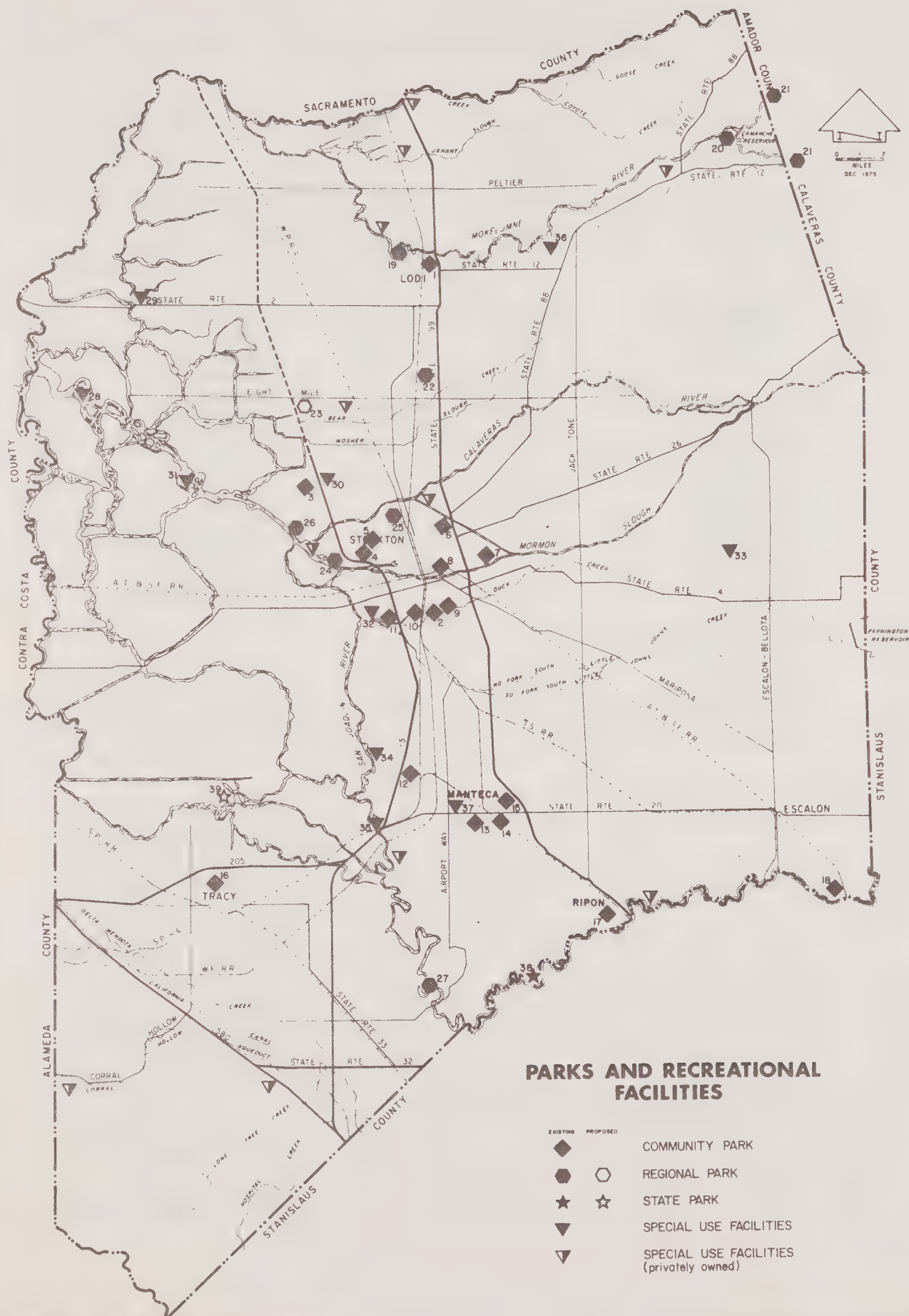


FIGURE 33

PUBLIC <sup>1</sup> RECREATIONAL FACILITIES (1)				
# On Map	FACILITY	ACREAGE	OWNER	PRIMARY USES
	COMMUNITY PARKS <sup>2</sup>			
1	Lawrence Park <sup>3</sup>	8.75	Lodi	picnic/baseball
2	Williams Brother- hood	14.10	Stockton	game courts/ picnic
3	Fritz Grupe	20.50	Stockton	baseball/tennis/picnic
4	Victory Park	27.50	Stockton	museum & art gallery/ picnic/tennis
5	American Legion	21.00	Stockton	picnic/lake view
6	Andrew Gianone	13.00	County	athletic field/tot lot
7	Eastside	10.00	County	athletic field/courts
8	Stribley	18.00	Stockton	community center/base- ball/picnic
9	Kennedy Memorial	15.00	County	community center/pool
10	Mc Kinley	21.50	Stockton	community center/ swimming pool
11	Van Buskirk	20.00	Stockton	community center/ soccer/picnic
12	Lathrop Community	9.15	County	community center/base- ball
13	Yosemite <sup>4</sup>	4.91	Manteca	picnic/athletic field
14	Lincoln <sup>4</sup>	3.73	Manteca	picnic/pool/baseball
15	Shasta <sup>4</sup>	6.86	Manteca	play apparatus
16	Tracy Ball Park	11.34	Tracy	baseball
17	City Park	7+	Ripon	community center
18	Jacob Meyer	54.60	Riverbank	picnic/river access
	REGIONAL PARKS			
19	Lodi Lake	72.00	Lodi	picnic/limited water recreation/conservation
20	Camanche Day Use	50.00	County	natural area/picnic/ river access
21	Camanche Reservoir	258.99	Calaveras, Amador, San Joaquin <sup>5</sup> Counties <sup>5</sup>	all water sports/ private concessions
22	Micke Grove	249.80	County	conservation of oak grove/museum/zoo/ rides/picnic/gardens
23	Oak Grove Regional	167.00	County	conservation of oak grove/undeveloped
24	Louis	70.70	Stockton	child's park/softball/ water access/picnic
25	Oak	61.20	Stockton	conservation of oak grove/picnic/baseball/ tennis/ice rink
26	Buckley Cove Marina	53.30	Stockton	marina/water access/ picnic
27	South County	178.63	County	picnic conservation/ angling access (not developed)

# On Map	FACILITY	ACREAGE	OWNER	PRIMARY USE
SPECIAL USE FACILITIES				
28	Mandeville Tip	176.00	Leased by County	docking/picnic/access only by water
29	Westgate Landing	24.72	County	Delta access/not developed
30	Swenson Golf Course	226.30	Stockton	golf course
31	South Spud	67.39	Leased by County	beach/picnic/access only by water
32	Van Buskirk Golf Course	167.70	Stockton	golf course
33	Rifle Range	17.00	County	firearms range
34	Dos Reis	9.00	County	picnic/angling access/boat launching
35	Mossdale	3.70	County	angling access/launching being developed
36	Harmony Grove	.80	County	historic building/group activities
37	Municipal Golf Course	77.48	Manteca	golf course
STATE PARKS				
38	Caswell	258.00	State	native vegetation conservation/nature walk, camping/picnic/river access
39	Old River Islands	700-1000	not in public ownership <sup>6</sup>	natural area

<sup>1</sup>Facilities owned or leased and maintained by a public agency; small areas, such as neighborhood parks, are not included.

<sup>2</sup>The typical uses in community parks are described in Figure 32, and apply to all of the parks listed. Special facilities are noted in the table.

<sup>3</sup>Grape Bowl Park (11.50 acres) is adjacent to Lawrence Park, together they serve a community function.

<sup>4</sup>The Manteca City General Plan, indicates a number of small parks as community; Lodi, Tracy and Stockton have parks of similar size which are considered neighborhood and therefore are not shown on the map. The Manteca parks are functionally comparable to neighborhood parks.

<sup>5</sup>The Camanche Park Board leases the recreational use of the land from the East Bay Municipal Utility District and contracts with two private concessionaires for development and administration.

<sup>6</sup>State legislature authorized acquisition in 1966 and appropriated funds; however, in 1976 the Board of Supervisors requested that the State seek another location.



is often determined by an existing physical feature, such as an oak grove, natural area, or historical building, which is made available for public use and enjoyment, while being conserved from adverse development. Privately owned special use recreational facilities, are shown on Map 18.

Existing recreational land uses (public and private), whose location is consistent with the policies of the General Plan, and which are of sufficient size to be a major land use in the area, are indicated on the General Plan Maps. Parks, golf courses, motorcycle areas, and major sports facilities in urban areas, are examples of areas shown for recreation. Recreation is also designated in those areas where the characteristics of the land or location make it particularly ideal for recreational use and development. Recreational areas, like other land uses, must be located to meet the needs and desires of the people.

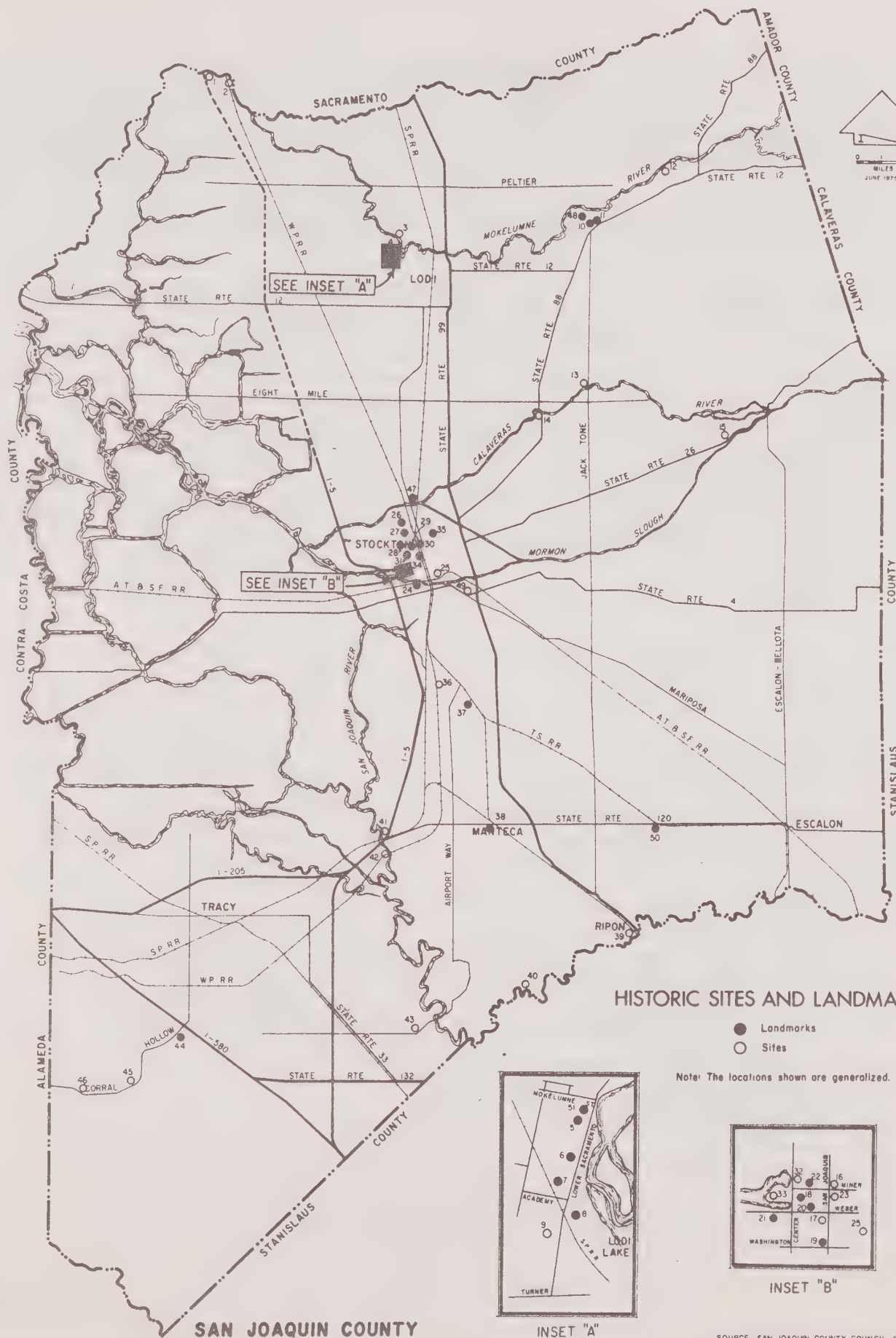
#### HISTORICAL PRESERVATION

Historical sites and landmarks are unique reminders of the social, economic, and political history of San Joaquin County, and may serve as sources of private investment and places of public recreational and educational activities.

In addition to local historical societies and organizations there is a County Historic Sites Technical Committee and the Stockton Cultural Heritage Board, which have been organized to select those sites and structures which best exemplify all aspects of the history of the region. County sites and landmarks bearing official recognition, and many others possibly worthy of such recognition are listed in Figure 34 and located on Map 19. This is by no means a comprehensive list. Such a list has not been researched or compiled on a County-wide basis. However, a Historical Element to the General Plan is scheduled for future preparation.

None of these sites or landmarks, with the exception of Harmony Grove Church now owned by the County, and possibly those to be included in the National Register, are guaranteed preservation from adverse development or neglect. The County presently has no architectural standards or forms of regulation or controls such as zoning, which would require or force consideration of historical landmarks and areas during times of development. It is also noted that few of the items listed are actually structures. Newer uses and buildings have replaced some of the County's finest structures of architectural and historical significance, leaving little actual tangible evidence of the past. Little consideration has been given to the preservation of these resources and there is a general lack of appreciation or awareness of many of the historical resources which the County possesses. Recently, however, some private interest and investment has been demonstrated.

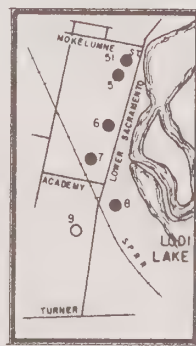
There are a number of problems involved in attempting to preserve and utilize historical buildings and even sites. Acquisition and restoration is often prevented by reluctant property owners or various types of controls and restrictions in zoning, health, and building, or other codes. Unrecognized structures or objects have been neglected and are reaching deterioration states beyond repair. However, closer investigation should reveal many significant heretofore unrecognized structures, area and even objects in the County worth preserving and using.



# HISTORIC SITES AND LANDMARKS

- Landmarks
- Sites

Note: The locations shown are generalized.



INSET "A"



INSET "B"

SOURCE: SAN JOAQUIN COUNTY COUNCIL OF GOVERNMENTS' CONSERVATION ELEMENT 5/73  
SAN JOAQUIN COUNTY PLANNING DEPARTMENT

There are archaeological sites in the County, however only a few have been identified. Most of the evidence of archaeological or paleontological significance at many sites has been removed or destroyed during agricultural operations, such as leveeing of the Delta and land leveling. Those sites that are identified have been surveyed by competent professionals and findings are recorded at the University of California at Berkeley. There may be additional sites as yet uncovered, particularly along historic stream courses. All such sites should be included in the inventory being compiled by the State.

FIGURE 34

HISTORIC SITES AND LANDMARKS (2)			
*indicates a historic <u>site</u> , all others are landmarks			
Number	on	Number	on
Map		Map	
1*	Benson's Ferry	31	Weber Primary School
2*	Mokelumne City	32*	First building in present
3*	Site of Wood's Ferry and Bridge		City of Stockton
4	Town of Woodbridge	33*	Weber Point/site of Captain
5	Original Wells Fargo Office Building		Weber's home
6	Restored General Store	34	Home of Benjamin Holt
7	Masonic Hall (built 1882)	35	Temple Israel Cemetery
8	Indian Burial Site & Pioneer	36	French Camp
	Cemetery	37	Dutch Point
9*	San Joaquin Valley College	38	East Union Cemetery
10*	Lockeford (Pioneer Hill)	39*	New Hope
11	Harmony Grove Church	40*	General Vallejo Battle
12*	Lone Star Mill	41*	First Transcontinental
13	John H. Tone House		Railroad, Site of com-
14*	Fremont Campsite		pletion of Pacific RR
15*	San Joaquin Female Seminary	42*	Comet Landing
16*	Stockton's first high school	43*	San Joaquin City
17*	San Joaquin Courthouse	44	El Camino Viejo (trail)
18*	Stockton's first drug store	45*	Corral Hollow
19	Saint Mary's Church	46*	Carnegie
20	The Hotel Stockton	47	Weber family home
21	The Sperry Building	48	Locke home and barn
22	Saint John's Episcopal Church	49*	1st improved road in
23*	County Jail (Cunningham Castle)		California
24	Santa Fe Depot	50	Fischer Stage Depot
25*	Burial Place of John Brown	51	I.O.O.F. Building
	(Juan Flaco)		
26	Stockton Rural Cemetery		
27	Reuel Colt Gridley Monument		
28	Hurrle-Weston Home		
29	Newell Home		
30	Superintendent's Home		



## CONSERVATION

Conservation is not, in itself, a land use; however, the designation is used on the maps of the General Plan to indicate that an area has hazardous features which should be considered when any specific land use change is proposed.

Conservation is designated where there are: known floodplains; substantial aquifer recharge areas (ground water replenishment); representative areas of remaining natural and native vegetation (excluding existing recreation areas); all waterways and adjacent riparian vegetation, except in urban areas where valuable qualities have been lost; areas of sand and gravel resources; and areas of significant wildlife habitat. These resources and hazards are described in Chapters I and VII.

Areas designated Conservation are best suited for non-urban type or open space land uses, which would enhance, conserve and emphasize the value of the specific area, while protecting development and people from probable hazards. Most areas are shown conservation for multiple reasons; therefore, land use proposals in conservation areas must be evaluated on an individual basis. A comprehensive plan and specific policies would help ensure optimum use of these areas, relative to other land uses in the County.

## LAND USE PROJECTIONS

The location and extent of future land uses are based on the projections of population, housing, and employment (see Chapter II); the development policies as contained in Policies for Development: San Joaquin County; and other development standards or constraints as presented in various Chapters of this text. The amount of land needed for future development is derived from the projections and density standards. The location of this development is guided by the policies and related constraints.

The location and extent of future land uses have also been influenced by current land use patterns and existing zoning. As indicated previously in the introduction to this Chapter, this consideration has resulted in a "controlled trend" approach to the revision of the land use element. In addition, other factors such as natural physical features or special district boundaries have sometimes been utilized as logical limits for future urban growth.

Because of the above considerations, more area is shown on the land use plan map for future urban development than will actually be needed during the planning period, as evidenced by the series of population, housing, and employment projections (see Figure 35 ). Furthermore, since the land use plan projects needs over a twenty-year period and is revised at least every five years, there is already inherent in the plan assurance of an ample supply of land, or choice factor, for urban development within any given five-year period (Figure 37 ). This choice factor more than adequately compensates for that land which may be unavailable for immediate development due to a variety of reasons.

In light of the foregoing considerations, it is all the more important that the development policies be followed in decision on the location of specific land uses. This is particularly applicable in regard to policies promoting future development within or adjacent to Urban Centers with the provision of basic municipal services.

Analysis of projected land use needs for residential, commercial, and industrial development are contained in the following sections.

### RESIDENTIAL

Land devoted to residential uses, in terms of gross acreage, constitutes almost half of the urbanized areas in San Joaquin County. Based upon the projection that there will be a population of 417,500 in the County by 1995, and on the policy that growth will be encouraged within or adjacent to Urban and Rural Centers, over 31,000 gross acres have been designated for urban residential uses. However, not all of this land will be needed for residential development within the planning period, as indicated by the housing and population projections (Figure 35 ), and comparison of the potential of undeveloped residential areas with the projected change in the number of dwelling units (Figure 38 ). Statistical areas used in this analysis are defined in Figure 36 .

In addition, over 4,000 gross acres in outlying rural areas are designated for certain densities of non-farm residential uses. Although most of these areas are already committed to this type of development, there is still land available within these areas for additional development (Figure 39 ). It should be mentioned that there are many small parcels in rural areas of the County which although in areas designated for agricultural uses, are nonetheless buildable sites and thus available for this type of residential use (Figure 40 ).

#### COMMERCIAL

Over 4,000 gross acres are designated for commercial use on the land use plan map. This total does not take into account those commercial uses which may be appropriate in other areas; for example, neighborhood shopping centers and administrative and professional offices in residential areas, and rural center commercial uses in agricultural areas. For purposes of comparing commercial land use needs with the number of gross acres designated for commercial use, ratios of acres required for selected types of commercial areas per one thousand population were applied to projected population increases, and the results were added to existing commercial acreages. Each of the planning areas appears to have a sufficient amount of land set aside for future commercial development (Figure 41 ).

#### INDUSTRIAL

A considerable amount of land, over 17,000 gross acres, is designated for industrial uses on the land use plan map. This total does not take into account those industrial uses which may be appropriate in other areas, such as extractive industries in agricultural areas. Extractive industries, which are currently utilizing approximately 800 acres, are not included in this analysis.

It is estimated that 3,200 net acres are presently in industrial uses. This indicates that about 4,000 gross acres are consumed by industrial uses, assuming an additional 25 percent is taken up by roads and streets. Based upon projected increases in average annual employment in the industrial sectors of the economy, approximately 2,100 additional net acres (or 2,600 gross acres) will be needed for industrial uses during the planning period (Figure 42 ). This assumes an average employee density of 10 employees per net acre, although actual densities may range from over 60 for certain light industrial uses to less than 10 for heavy industrial uses. By 1995, a total of 6,600 gross acres is expected to be consumed by industrial uses.



FIGURE 35

POPULATION AND DWELLING UNITS 1972 AND 1995<sup>1</sup>  
 LAND USE/CIRCULATION ELEMENT OF THE SAN JOAQUIN COUNTY GENERAL PLAN TO 1995

PLANNING AREA & URBAN CENTERS <sup>2</sup>	POPULATION			DWELLING UNITS								
				1972			1995			CHANGE		
	1972	1995	CHANGE	SINGLE	MULTIPLE	TOTAL	SINGLE	MULTIPLE	TOTAL	SINGLE	MULTIPLE	TOTAL
STOCKTON	184,567	248,056	63,489	44,774	18,137	62,911	57,951	31,662	89,613	13,177	13,525	26,702
Stockton	172,341	230,393	58,052	41,451	18,009	59,460	52,801	31,525	84,326	11,350	13,516	24,866
French Camp	2,358	2,901	543	579	90	669	788	99	887	209	9	218
Rural Portion	9,868	14,762	4,894	2,744	38	2,782	4,362	38	4,400	1,618	0	1,618
SOUTH DELTA	3,270	3,502	232	332	0	332	427	0	427	95	0	95
THORNTON	2,308	2,404	96	601	42	643	665	52	717	64	10	74
Thornton	1,008	1,141	133	245	40	285	295	50	345	50	10	60
Rural Portion	1,300	1,263	-37	356	2	358	370	2	372	14	0	14
LODI	41,851	56,066	14,215	11,865	2,986	14,851	14,800	6,008	20,808	2,935	3,022	5,957
Lodi	32,484	46,400	13,916	9,060	2,887	11,947	11,645	5,909	17,554	2,585	3,022	5,607
Rural Portion	9,367	9,666	299	2,805	99	2,904	3,155	99	3,254	350	0	350
LOCKEFORD	5,576	7,209	1,633	1,904	95	1,999	2,414	115	2,529	510	20	530
Lockeford	1,165	1,826	661	361	74	435	561	94	655	200	20	220
Rural Portion	4,411	5,383	972	1,543	21	1,564	1,855	21	1,874	310	0	310
LINDEN	3,158	3,418	260	1,062	23	1,085	1,157	33	1,190	95	10	105
Linden	905	1,151	246	305	6	311	385	16	401	80	10	90
Rural Portion	2,253	2,267	14	757	17	774	772	17	789	15	0	15
ESCALON	7,247	9,418	2,171	2,334	80	2,414	3,031	262	3,293	697	182	879
Escalon	3,120	4,977	1,857	974	64	1,038	1,521	246	1,767	547	182	729
Rural Portion	4,127	4,441	314	1,360	16	1,376	1,510	16	1,526	150	0	150
RIPON	5,531	7,224	1,693	1,737	122	1,859	2,291	262	2,553	554	140	694
Ripon	3,158	4,696	1,538	956	106	1,062	1,436	246	1,682	480	140	620
Rural Portion	2,373	2,528	155	781	16	797	855	16	871	74	0	74
MANTECA	28,260	42,966	14,706	8,040	1,502	9,542	11,732	3,084	14,816	3,692	1,582	5,274
Manteca	19,397	32,269	12,872	5,183	1,291	6,474	8,490	2,823	11,313	3,307	1,532	4,839
Lathrop	2,712	3,672	960	838	129	967	1,058	179	1,237	220	50	270
Rural Portion	6,151	7,025	874	2,019	82	2,101	2,184	82	2,266	165	0	165
TRACY	23,079	37,371	14,292	6,323	1,213	7,536	9,421	3,646	13,067	3,098	2,433	5,531
Tracy	17,737	30,554	12,817	4,559	1,174	5,733	7,282	3,607	10,889	2,723	2,433	5,156
Rural Portion	5,342	6,817	1,475	1,764	39	1,803	2,139	39	2,178	375	0	375
COUNTY TOTAL	304,847	417,634	112,787	78,972	24,200	103,172	103,889	45,124	149,013	24,927	20,924	45,851

<sup>1</sup>Data for 1995 is based on the high series of population projections for the County and subsequent allocations to Planning Areas. Data for 1972 is based on the 1970 Census and building permit information from 1970-1972.

<sup>2</sup>See Figure 36 for statistical area definitions of Urban Centers.

SOURCE: Housing and Population Projections for San Joaquin County 1980 and 1995, Community Development Program, 1972.

FIGURE 36

STATISTICAL AREAS<sup>1</sup>  
FOR URBAN CENTERS

PLANNING AREA/ Urban Center	CENSUS TRACT	TRAFFIC ZONE
STOCKTON	1-38	All
Stockton	1-30 31.01 31.02 32.01 32.02 33.01 33.02 33.03 34 35 36.01 37 38	All All All All 01-06,10-16 All All All 01-03,08-12, 14-17,19-22 11 01-04,07-09 01-03,08-09,11 03-07
French Camp	38	09-11,16
SOUTH DELTA	39	All
THORNTON	40	All
Thornton	40	08
LODI	41.01-46	All
Lodi	41.01 42.01 42.02 43.01 43.02 44 45	02-03 All All 01-04,06-09 All 01-08 All
LOCKEFORD	47	All
Lockeford	47	09
LINDEN	48	All
Linden	48	02-03
ESCALON	49	All
Escalon	49	09-12
RIPON	50	All
Ripon	50	05-08 <sup>2</sup>
MANTECA	51.01-51.06	All
Lathrop	51.01	02-03,06-07,10, 14-15
Manteca	51.02 51.03 51.04 51.05	03-20 06,09-12,16 All 03-12
TRACY	52.01-55	All
Tracy	52.01 52.02 53.01 53.02 54	01-02,07 06-07 All All 01-10

The statistical areas for Urban Centers are established so as to conform to the maximum extent possible, with the urban growth areas as shown on the area plan maps of the draft Land Use/Circulation Element of the San Joaquin County General Plan to 1995.

<sup>2</sup> Also the Spring Creek area portion of Traffic Zone 03 (increases estimated at 80 single-family units and 220 population).

Figure 37

## 1995 LAND USE AREAS

LAND USE/ CIRCULATION ELEMENT OF THE SAN JOAQUIN COUNTY GENERAL PLAN TO 1995	GROSS ACREAGE IN PLANNING AREA	URBAN AND RURAL CENTERS																BALANCE					
		TOTAL	RESIDENTIAL				TOTAL	COMMERCIAL			TOTAL	INDUSTRIAL		TOTAL	PUBLIC/QUASI-PUBLIC			TOTAL	TOTAL	URBAN RESERVE AGRICULTURE CONSERVATION WATER & WATERWAYS	RURAL RESIDENTIAL	PARKS AND RECREATION	GOVERNMENTAL AND INSTITUTIONAL
			SUBURBAN DENSITY	LOW DENSITY	MEDIUM DENSITY	HIGH DENSITY		RETAIL COMMERCIAL	COMMERCIAL SERVICE	HIGHWAY SERVICE		LIMITED INDUSTRIAL	GENERAL INDUSTRIAL		EDUCATIONAL	PARKS AND RECREATION	GOVERNMENTAL AND INSTITUTIONAL						
COUNTY	924,197	66,257	2,098	24,864	2,406	2,088	31,456	1,716	2,007	621	4,344	8,190	8,955	17,145	1,990	2,836	8,486	13,312	858,940	843,674	4,489	3,865	6,512
THORNTON	77,219	472	95	180	25		300	8	13	23	44	7	110	117	6	5		11	76,747	76,747			
LODI	81,310	5,980	44	2,885	467	300	3,696	209	247	18	474	233	645	878	334	528	70	932	75,330	74,658	540	95	37
Lodi		5,479	44	2,470	467	300	3,281	195	247	5	447	213	625	838	315	528	70	913					
Victor		58		30			30	8			8	20		20									
Acampo		52		30			30	2			2		20	20									
Coopers Corner		60		45			45	4			4				11			11					
Henderson Village		58		50			50								8			8					
LOCKEFORD	122,622	996	190	498	36		724	39	25		64	52	112	164	14	10	20	44	121,626	120,601	710	315	
Lockeford		863	190	397	36		623	20	25		45	42	112	154	11	10	20	41					
Clements		133		101			101	19			19	10		10	3			3					
LINDEN	90,403	340	43	140	20		203	25	10		35	20	15	35	57		10	67	90,063	89,853	210		
Linden		287	43	105	20		168	20	10		30	20	15	35	50		4	54					
Farmington		53		35			35	5			5				7		6	13					
ESCALON	63,560	1,155		530	125		655	35	60	15	110	85	155	240	70	45	35	150	62,405	62,405			
RIPON	23,775	1,745		789	75		864	32	65	20	117	180	215	395	100	204	65	369	22,030	21,630		1,000	
Ripon		1,713		764	75		839	30	65	20	115	175	215	390	100	204	65	369					
Simms Station		32		25			25	2			2	5		5									
MANTECA	68,589	9,809	791	3,090	534	264	4,679	324	281	75	680	560	2,632	3,192	209	319	730	1,258	58,779	58,779			
Manteca		5,744	791	2,594	460	264	4,109	284	181	55	520	300	255	555	194	311	55	560					
Lathrop		4,065		496	74		570	40	100	20	160	260	2,377	2,637	15	8	675	698					
TRACY	175,654	7,133		2,727	489	225	3,441	155	136	115	406	956	946	1,902	273	50	1,061	1,384	168,521	158,669	922	2,455	6,475
Tracy		6,708		2,647	489	225	3,361	115	136	65	316	941	716	1,657	263	50	1,061	1,374					
Banta		80		35			35	20			20	15		15	10			10					
Vernalis		115		45			45	20			20		50	50									
STOCKTON	90,361	38,627	935	14,025	635	1,299	16,894	889	1,170	355	2,414	6,097	4,125	10,222	927	1,675	6,495	9,097	51,734	49,627	2,107		
Stockton		37,371	935	13,885	635	1,299	16,754	879	940	220	2,039	5,853	4,010	9,863	920	1,675	6,120	8,715					
French Camp		1,256		140			140	10	230	135	375	244	115	359	7		375	382					
SOUTH DELTA	130,705																		130,705	130,705			



FIGURE 38

POTENTIAL OF UNDEVELOPED RESIDENTIAL AREAS AND PROJECTED CHANGE IN DWELLING UNITS 1972-1995  
Land Use/Circulation Element of the San Joaquin County General Plan to 1995

PLANNING AREA, URBAN CENTERS, & RURAL CENTERS	UNDEVELOPED AREA <sup>1</sup>			POTENTIAL UNITS WITH PLANNED DENSITIES <sup>2</sup>				CHANGE IN DWELLING UNITS <sup>3</sup>			Acres <sup>4</sup> Needed
	Suburban	Low	Medium	Suburban(1-2)	Low(2-6)	Medium(6-15)	Total	Single	Multiple	Total	
STOCKTON								13177	13525	26702	
URBAN PORTION Stockton								11559 11350	13525 13516	25084 24866	2793- 13603
French Camp		65 (16)			146-406		146-406	209	9	218	36- 211
RURAL PORTION								1618	0	1618	
THORNTON								64	10	74	
URBAN PORTION Thornton	69 (2)	113 (12)	5 (1)	71-140	238-690	31-76	340-906	50 50	10 10	60 60	9-52
RURAL PORTION								14	0	14	
LODI								2935	3022	5957	
URBAN PORTION Lodi	24 (16)	1843 (89)	113 (9)	40-64	3775-11147	687-1704	4502-12915	2585 2585	3022 3022	5607 5607	632- 3089
RURAL PORTION								350	0	350	
Acampo		20 (3)			43-123		43-123				
Coopers Corner		18 (3)			39-111		39-111				
Henderson Village		16 (3)			35-99		35-99				
Victor		12 (21)			45-93		45-93				
LOCKEFORD								510	20	530	
URBAN PORTION Lockeford	179	256 (112)	(5)	179-358	624-1648	5	808-2011	200 200	20 20	220 220	34- 203
RURAL PORTION Clements		66 (12)			144-408		144-408	310	0	310	
LINDEN								95	10	105	
URBAN PORTION Linden	37	66 (19)	11 (2)	37-74	151-415	68-167	256-656	80 80	10 10	90 90	14-H2
RURAL PORTION Farmington		24 (10)			58-154		58-154	15	0	15	
ESCALON								679	182	879	
URBAN PORTION Escalon		349	35		698-2094	210-525	908-2619	547 547	182 182	729 729	103- 577
RURAL PORTION								150	0	150	
RIPON								554	140	694	
URBAN PORTION Ripon		484 (3)	20		971-2907	120-300	1091-3207	480 480	140 140	620 620	89- 503
RURAL PORTION Simms Station		12			24-72		24-72	74	0	74	
MANTECA								3692	1582	5274	
URBAN PORTION Manteca	611 (26)	1650 (220)	140 (98)	637-1248	3520-10120	938-2198	5095-13566	3527 3307	1582 1532	5109 4839	653- 3562
Lathrop		216 (71)	31 (8)		503-1367	194-473	697-1840	220	50	270	40- 228
RURAL PORTION								165	0	165	
TRACY								3098	2433	5531	
URBAN PORTION Tracy		1507	319		3014-9042	1914-4785	4928-13827	2723 2723	2433 2433	5156 5156	616- 3129
RURAL PORTION Banta		13 (3)			39-91		39-91	375	0	375	
Vernalis		55			110-330		110-330				
SOUTH DELTA								95	0	95	

<sup>1</sup>In gross acres (figures in parentheses indicate the number of vacant parcels). The figures for Undeveloped Areas include those areas within urban growth areas (as shown on area plan maps in the draft Land Use/Circulation Element of the San Joaquin County General Plan to 1995). These figures do not include vacant parcels within incorporated areas.

<sup>2</sup>Densities are expressed in terms of the number of dwelling units per gross acre. In Rural Centers, the potential will be limited by the lack of water and sewer systems.

<sup>3</sup>See Figure 36 on Statistical Areas for Urban Centers.

<sup>4</sup>In gross acres (densities used were 1-6 for single units and 6-15 for multiple units). Land used for replacement housing and housing constructed on individual vacant parcels is not included in this figure.

FIGURE 39

## ANALYSIS OF RURAL RESIDENTIAL AREAS

Land Use/Circulation Element of the San Joaquin County  
General Plan to 1995

PLANNING AREA	RURAL RESIDENTIAL AREA		TOTAL GROSS ACRES	EXISTING DWELLING UNITS	ADDITIONAL DWELLING UNITS POSSIBLE <sup>1</sup>
Stockton	Avalon	(White Lane/North of Rt. 26)	190	74	30-42
	Morada	(Rt. 99 & Morada Lane)	1447	1206	334
	Glenwood	(Rt. 26 & Alpine)	310	213	27-33
	Noble Acres	(Copperopolis & Tulsa)			
	Watters	(Watters & Priest Rd.)	160	235	24
Lockeford	Elliott	(Jack Tone & Jahant)	710	83	113-169
Lodi	Collierville	(Rt. 99 & Collier Rd.)	540	220	89
Linden	Peters	(Copperopolis & Fine)	210	34	45-66
Tracy	Lammersville	(Von Sosten & Hanson)	285	36	85-94
	Mountain View	(Corral Hollow & Mountain View)	145	34	33-38
	Willmar Estates	(Grant Line & Bird)	75	0	20-32
	Valpico	(Valpico & MacArthur)	203	95	60-62
	Chrisman	(Chrisman & I-580)	76	0	27
	New Jerusalem	(Rt. 33 & Durham Ferry Rd.)	138	20	22
TOTAL COUNTY			4489	2250	909-1032

<sup>1</sup> Rough Estimate of Potential Additional Dwelling Units according to the density standard in Figure 29.

FIGURE 40

PARCELS WITHOUT HOUSES IN RURAL AREAS<sup>1,2</sup>

PLANNING AREA	PARCELS BY SIZE								TOTAL
	0-2.9Ac	3-4.9Ac	5-9.9Ac	10-19.9Ac	20-39.9Ac	40-79.9Ac	80-159.9Ac	160+	
STOCKTON	584	138	188	182	175	116	84	24	1491
LODI	224	54	168	244	254	142	67	21	1174
LOCKEFORD	338	99	214	264	226	202	140	125	1608
LINDEN	185	36	94	124	181	185	151	139	1095
ESCALON	298	31	59	67	76	39	17	2	589
RIPON	291	28	44	69	90	44	15	2	583
MANTECA	344	35	87	111	113	109	50	22	871
TRACY	248	62	96	122	178	199	183	197	1285
DELTA	73	27	39	45	72	75	63	88	482
THORNTON	105	27	35	46	35	43	46	62	399
COUNTY	2690	537	1024	1274	1400	1154	816	682	9577

<sup>1</sup>Urbanizing areas not included in survey<sup>2</sup>Legal parcels are generally buildable sites

SOURCE: San Joaquin County Land Use Study, 8/28/74



FIGURE 41

PLANNING AREA	COMMERCIAL LAND USE NEEDS <sup>1</sup>												
	POPULATION			ACRES PER 1,000 POPULATION <sup>2</sup>							ADDITIONAL ACRES NEEDED	EXISTING COMMERCIAL ACREAGE	TOTAL ACREAGE IN 1995
	1972	1995	CHANGE	NEIGHBORHOOD SHOPPING CENTERS	COMMUNITY SHOPPING CENTERS	REGIONAL SHOPPING CENTER	ADMINISTRATIVE & PROFESSIONAL OFFICES	GENERAL RETAIL AND SERVICE	HIGHWAY SERVICE	TOTAL <sup>5</sup>			
STOCKTON	184,567	248,056	63,489	0.8	0.7 <sup>4</sup>	0.5 <sup>3</sup>	0.2	2.1	0.2	4.5	310	1,669	1,979
SOUTH DELTA	3,270	3,502	232					2.1	0.2	2.3	1	6	7
THORNTON	2,308	2,404	96		0.7			2.1	0.2	3.0	1	18	19
LODI	41,851	56,066	14,215	0.8	0.7		0.2	2.1	0.2	4.0	57	66 <sup>6</sup>	123 <sup>6</sup>
LOCKEFORD	5,576	7,209	1,633		0.7			2.1	0.2	3.0	5	27	32
LINDEN	3,158	3,418	260		0.7			2.1	0.2	3.0	1	12	13
ESCALON	7,247	9,418	2,171		0.7			2.1	0.2	3.0	7	51	58
RIPON	5,531	7,224	1,693		0.7			2.1	0.2	3.0	5	30	35
MANTECA	28,260	42,966	14,706	0.8	0.7		0.2	2.1	0.2	4.0	59	308	367
TRACY	23,079	37,371	14,292	0.8	0.7		0.2	2.1	0.2	4.0	57	119	176
COUNTY	304,847	417,634	112,787								503	2306 <sup>6</sup>	2809 <sup>6</sup>

<sup>1</sup>In net acres<sup>2</sup>These are typical standard ratios as suggested in the Commercial Areas Land Use Plan, Sacramento County, 1970. They were based on existing relationships between commercial acreage and population.<sup>3</sup>The ratio was applied to the change in the total population of San Joaquin County.<sup>4</sup>The ratio was applied to the total change in population of the Stockton and South Delta planning areas.<sup>5</sup>The total ratio is based on the future needs of the community as described in the Urban-Rural Structure.<sup>6</sup>Figures exclude data for the Lodi urbanized area.

FIGURE 42

INDUSTRIAL LAND USE NEEDS  
BASED UPON EMPLOYMENT PROJECTIONS TO 1995<sup>1</sup>

EMPLOYMENT <sup>2</sup>			
INDUSTRIAL CATEGORY	1971	1995	INCREASE
MANUFACTURING	17100	31000	13900
Food Processing	7100	10700	3600
Paper, Printing, Publishing	1600	2100	500
Lumber, Wood Products	1500	2300	800
Fabricated Metals	800	1500	700
Electrical Machinery	200	400	200
Non-Electrical Machinery	1300	2100	800
Other Manufacturing	4600	11900	7300
WHOLESALE TRADE	4500	6800	2300
TRUCKING & WAREHOUSING	2000	4300	2300
CONSTRUCTION	4300	6700	2400
TOTAL	27900	48800	20900
LAND USE <sup>2</sup>			
	1972	1995	INCREASE
NET ACRES UTILIZED	3200 <sup>3</sup>	5300	2100 <sup>4</sup>
GROSS ACRES CONSUMED <sup>5</sup>	4000	6600	2600

<sup>1</sup>Projections of the Economy of San Joaquin County, Stanford Research Institute, September, 1973. NOTE: Numbers represent annual average employment.

<sup>2</sup>Excluding extractive industries.

<sup>3</sup>Estimated from Land Use Inventory, 1972

<sup>4</sup>Based on average space standard of 10 employees per net acre.

<sup>5</sup>Includes additional 25% for streets and roads.







*Chapter V*

**CIRCULATION**



## CIRCULATION

Most of the material in this section of the Land Use/Circulation Element has been developed by the San Joaquin County Council of Governments (COG).<sup>1</sup> Designated by the State of California as the official transportation planning agency for the region, the COG has prepared and adopted (April 22, 1975) a Transportation Plan (1-9), which is the basis for the County Circulation Element. All applications for state and federal funding of transportation projects are reviewed by the COG; a recommendation for funding approval is based on conformity with the COG's Transportation Plan.

The transportation system plan, as originally prepared and presented here for inclusion in the County's General Plan, considered several alternatives in its formulation. Each of the alternatives would achieve National Ambient Air Quality Standards by 1977.<sup>2</sup> All would encourage higher occupancy of motor vehicles, new uses of land to reduce the need to travel, and improvement of alternative modes to maintain and further improve air quality.

The three alternatives are the "do-nothing" alternative, the "needs" alternative, and the constrained financial alternative. The "do-nothing" alternative assumed no expansion of the system but allowed for routine maintenance. It was rejected because it was not consistent with the policies of the COG plan; just as it would be inconsistent with the policies of the County Plan. The "needs" alternative represented a composite of the alternatives for individual transportation modes which were identified and developed on the basis of perceived community needs and desires. The constrained financial alternative assumed funding only from existing sources. This alternative would accomplish only a very restricted program.

The "needs" alternative was selected as the Regional Transportation Plan. In the following discussion of the various transportation modes, it is this alternative which is included as the County's Circulation Element. This alternative recognizes the continued reliance on the private automobile but proposes significant expansion of public transportation service.

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<sup>1</sup>The COG functions under a joint powers agreement involving San Joaquin County and all incorporated cities within the County.

<sup>2</sup>This is being questioned by the Air Resources Board and will be studied further during the preparation of an Air Quality Management Plan.



## ROADS AND STREETS

The road and street system is and probably will continue to be the major element of the transportation system. Current investment and commitment to the automobile and a reluctance, at present, on the part of the traveling public to relinquish this in favor of alternative modes of travel will contribute to the continued importance of the road system. It should be remembered that usage of the road system is not restricted to automobiles alone; trucks, buses, motor-cycles, bicycles, taxis, maintenance and emergency vehicles all need and use the same facilities.

### ASSUMPTIONS

Although personal choice and investment may indicate continued reliance on the automobile for a personal mode of transport, future travel patterns could be influenced by any of the following factors:

- energy availability or costs of energy
- other modes of travel having a significant impact on the use of the auto
- legislation that might curb the use of the auto
- lack of parking at terminal and transfer points.

The assumption has been made, in this plan that none of these will have a significant impact.<sup>1</sup>

### TYPES OF ROADWAYS

Specific types of roadways perform specialized functions within the circulation system.<sup>2</sup> Some are primarily for the movement of people and goods over distances. Other primarily furnish access to adjacent land uses. In a few cases, both of these functions, through movement and land service are being performed by a single road. However, since the two functions generally conflict with each other, the performance of each is hindered by the other.

For the achievement of efficiency, safety, and economy in a circulation system, a relationship should be established between the classification of road and the function which it will be required to perform.

### FUNCTIONAL ANALYSIS

In order to analyze and establish the necessary and proper functions of existing and proposed roadways, six interrelated factors must be considered. These factors are: 1) marginal friction; 2) distance; 3) speed; 4) traffic volume; 5) type of vehicles; and 6) land use relationships.

<sup>1</sup>This assumption is being reevaluated. A future plan update will describe more fully potential courses of action related to energy conservation.

<sup>2</sup>It should be recognized that roads have functions other than their primary ones. In terms of their visual, psychological, activity characteristics they take on other functions, such as acting as barriers and visual breaks.

- 1) marginal friction - Marginal friction denotes the amount of interference with through movement created by the direct access of abutting uses and by intersections. This interference is created by traffic entering and leaving fronting uses and by turning or crossing movements at intersections. Control of access is the means of minimizing marginal friction, and thus preserving the through function and the carrying capacity of a road.
- 2) distance - Distance to be traveled can be established by analyzing the nature and relative location of the land use concentrations connected or served by a roadway.
- 3) speed - Normally, a desirable guide to be followed is: the greater the distance to be traveled, the higher should be the permitted speed. To achieve a higher permitted speed, there must be a reduction of the marginal friction. Speed should also be related directly to the land use served.
- 4) traffic volume - The volume of traffic generated by various land uses can be surveyed, analyzed and projected with reasonable accuracy, based upon the type, intensity and extent of the land use. Knowing the anticipated volume is a guide in designating the function of a roadway, and thereby designing the road to accommodate the traffic.
- 5) type of vehicles - The type of vehicles to be accommodated on a roadway partially determines the function of the road and affects the design. The types and volume of vehicles using a street or road in an area are directly related to the type and intensity of the land use served by the street or road. Thus, the land use indirectly would influence the design.
- 6) land use relationships - The relationship between land use and both the function and the design of the roadway cannot be overemphasized. The physical relationships between the trafficway and the abutting land uses are evident. These relationships must be considered in order to protect the function of the road, to minimize disruption to adjacent land uses, and maximize service to adjacent uses. Safety considerations in this regard are particularly important.

The various patterns of movements of individuals should be analyzed in determining the relationships between the circulation system and land use. The major movements are from home to work and return; between home and shopping areas; between home and school; and between living and recreation areas. Studies have been conducted which indicate the amount of traffic movements between different areas. These studies have been used to determine traffic projections as a base from which to project, by means of computer analysis, the amount of traffic throughout the County over the next 20 years.

Various types of land uses can be expected to generate certain amounts and types of traffic. Projections currently in use will need to be revised in some cases and locales to reflect revisions being made in the Land Use Element. The

circulation system should be developed not only to serve the land uses projected but it should assist in achieving the goals and implementing the policies of the land use and circulation plans. The circulation system developed not just in response to urban growth, but has always had a chicken and egg relationship. The availability of circulation components encourages development. A comprehensive plan must recognize the mutual impacts of land use and circulation on one another.

#### FUNCTIONAL CLASSIFICATION

For the purpose of the County Circulation Element the following classifications have been used: Local Road,<sup>1</sup> Minor Collector, Major Collector, Arterial, Freeway. The functional road system appears on the 1995 Plan Maps of this Element. Each classification is described below:

##### Local Road or Street

Function: provides local access to abutting properties; not intended to accommodate any through traffic; mainly for use of only passenger vehicles.

Characteristics: lowest traffic volumes and permitted speeds; involves shortest travel distances; usually contains no fixed bus routes; normal right-of-way width is 50'.

##### Minor Collector

Function: collects vehicles from local streets and carries these vehicles to the locally important traffic generators and/or major collectors.

Characteristics: fairly low speeds, fronting uses would have direct access; spaced at intervals consistent with population density; in the urban areas may contain the collector portion of some bus routes, normal right-of-way width is 60'.

##### Major Collector

Function: 1) collects traffic from two or more Minor Collectors and carries it to the community center and/or

Characteristics: medium speeds in urban areas and higher speeds in rural areas; direct access minimized by limiting number of intersections and driveways and by other design features; should not penetrate identifiable neighborhoods; normal right-of-way width is 84'.

<sup>1</sup>These categories have been arrived at by combinations of the classifications in the COG Transportation Plan. Arterial includes Urban Principal Arterial (Expressway) and Rural Minor Arterial; Major Collector includes Urban Minor Arterial and Rural Major Collector; Minor Collector includes Urban Collector and Rural Minor Collector.



## Arterial

Function: moves large volumes of relatively high speed traffic between areas that are major traffic generators, such as between communities, collects traffic from major collectors.

Characteristics: partially limited access (perhaps achieved by backing lots or frontage roads in urban areas); controlled at-grade intersection with other roads; railroad grade separations; median strip; spaced at intervals, consistent with population density, so that all developed areas in the County are within a reasonable distance of an arterial; normal right-of-way width is 110' plus frontage roads if necessary.

## Freeway

Function: accommodates high speed, high volume, long distance regional through traffic; also serves peak traffic loads within and between urban areas; collects traffic from arterials.

Characteristics: access limited to grade separated intersections with other arterials; access to adjacent uses by frontage or other roads; separation of all conflicting traffic movements, normal right-of-way width is 210'.

In moving from the lowest order (local street) to the highest order road (freeway), one experiences a decrease in marginal friction, increase in speed and increase in distance traveled.

## THE 1972 ROAD SYSTEM IN SAN JOAQUIN COUNTY

Within the County there are presently over 2,600 miles of roads and streets, of which 217 miles are State highway routes (Map 20). The Central Valley's two major north-south routes, Interstate 5 and State Route 99, pass through the center of the County, and Interstate 205 and 580 lead to the San Francisco Bay Area.

## 1995 TRAFFIC PROJECTIONS

In 1972 the daily vehicle miles of travel in San Joaquin County was 6.5 million.

By 1995 the number of daily vehicle miles of travel is expected to reach 12.5 million, almost double that of 1972.

Using the projected 1995 weekday trips, resulting levels of service on the 1972 road system were determined (A-best, F-worst). A level of service C was used as the planning level for the road and street system.

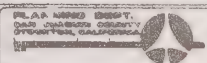
- Level of service C: stable flow with most of the drivers restricted in their freedom to select their own speed, change lanes or pass.
- Level of service D-E: unstable flow with possible stoppages of momentary duration, low operating speeds, and with volumes at or near capacity.
- Level of service F: forced flow at low speeds with volumes below capacity and with stoppages occurring for short or long periods of time because of traffic congestion ahead.



**EXISTING STREETS AND ROADS**

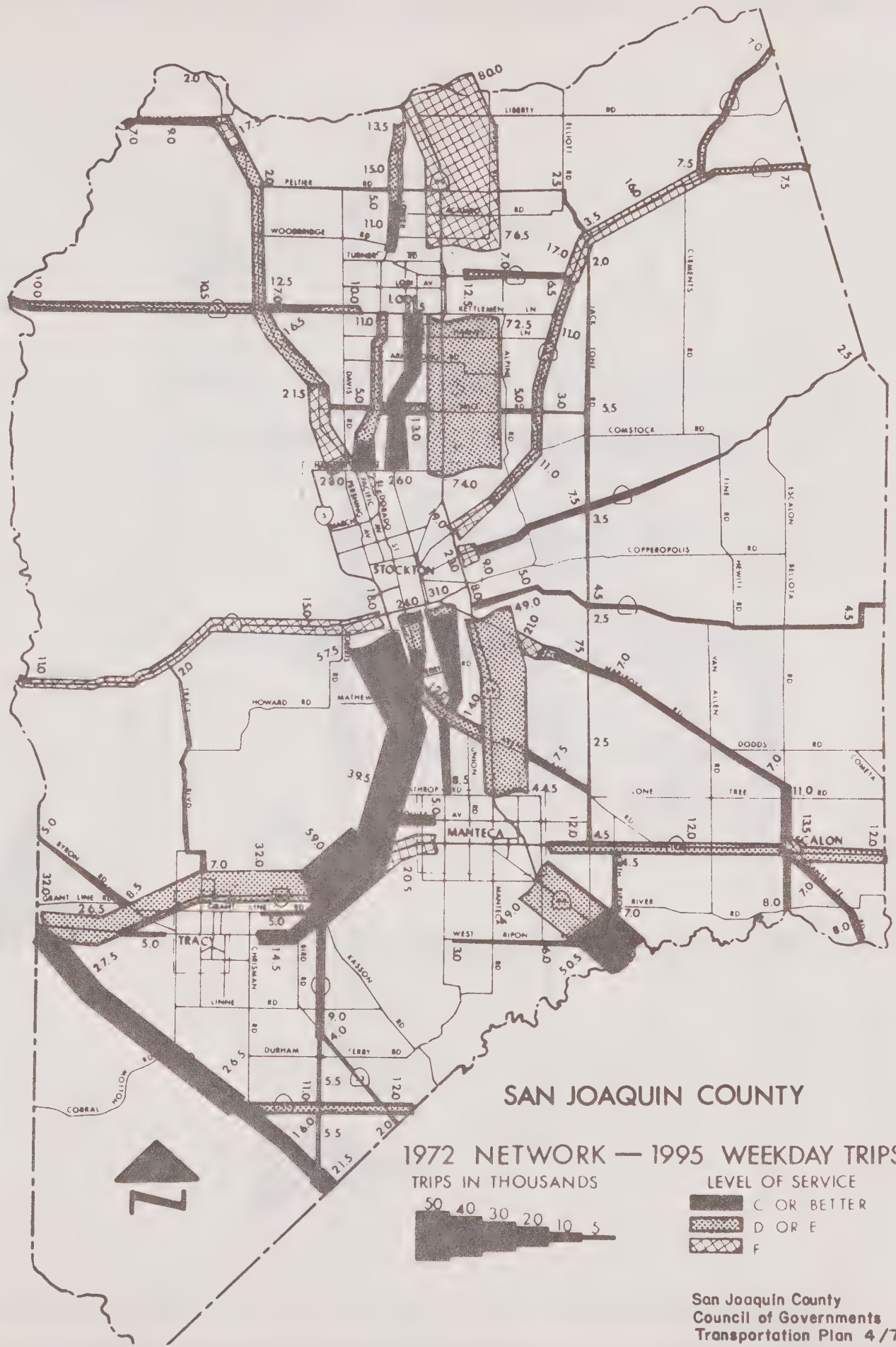
JUNE 1975

**SAN JOAQUIN COUNTY**

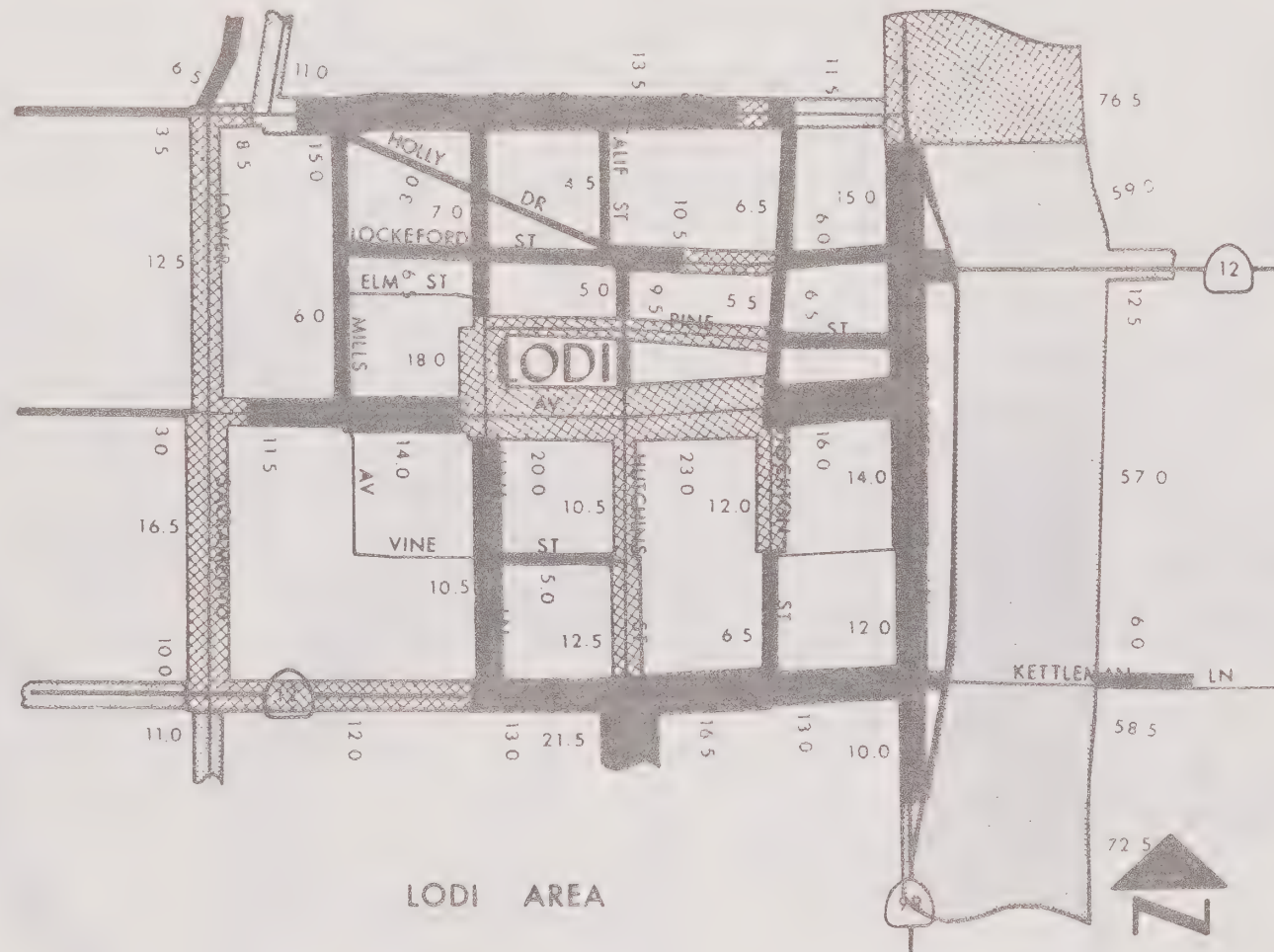


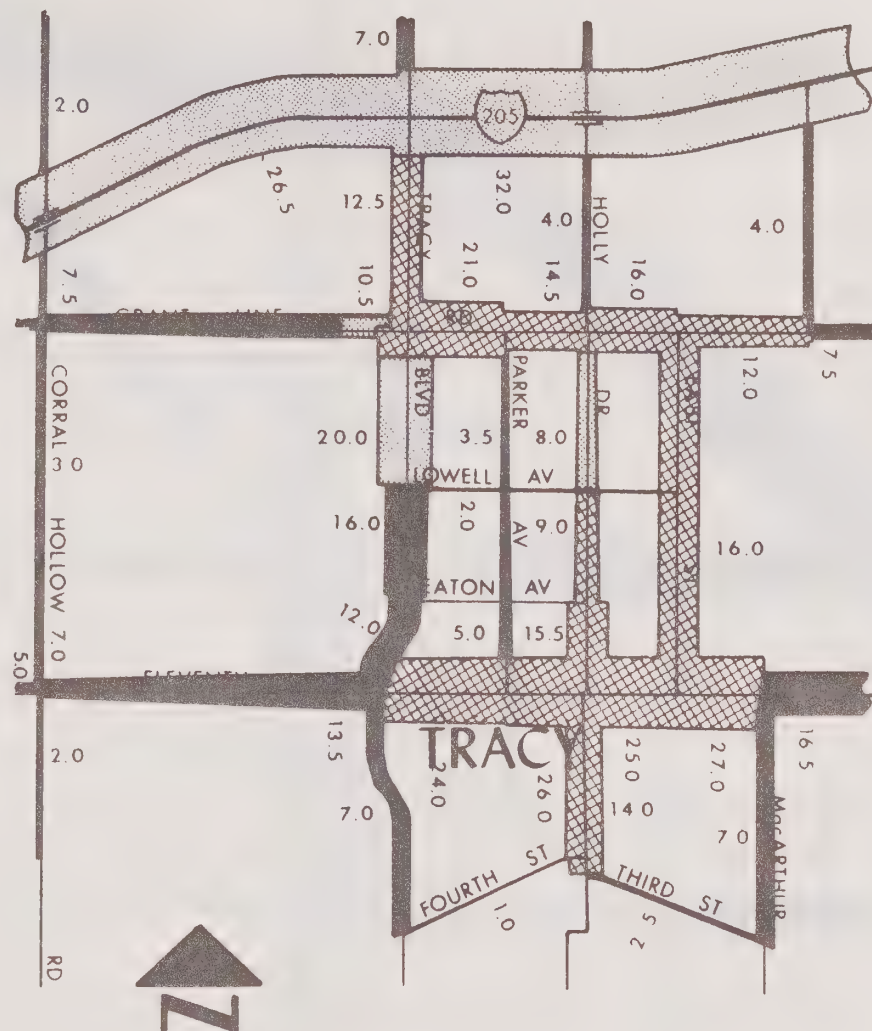
MAP NO. 20







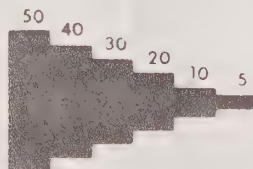




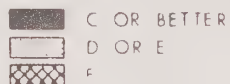
## TRACY AREA

### 1972 NETWORK — 1995 WEEKDAY TRIPS

TRIPS IN THOUSANDS



LEVEL OF SERVICE



120

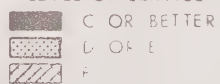


# 1972 NETWORK — 1995 WEEKDAY TRIPS

TRIPS IN THOUSANDS



LEVEL OF SERVICE



MANTECA AREA

San Joaquin County  
Council of Governments  
Transportation Plan 4/75



Maps 21-24 illustrate the levels of service which could be expected in 1995 if there were no changes made in the 1972 network.<sup>1</sup> This "no action" alternative leaves many areas with low levels of service, as shown in the map. The predominant problem would be congestion, with safety and circulation being the main issues in many areas.

#### THE 1995 ROAD SYSTEM PLAN

After analyzing the needs in the 1972 system, new construction and improvements were included in the plan to achieve the desired performance level for the system. This plan generally satisfies the policies for roads and streets. Maps 25 and 26 show roadways which have been included in the plan for improvements and/or construction. Figure 43 describes the existing facilities and the improvements and construction necessary to achieve the 1995 plan.

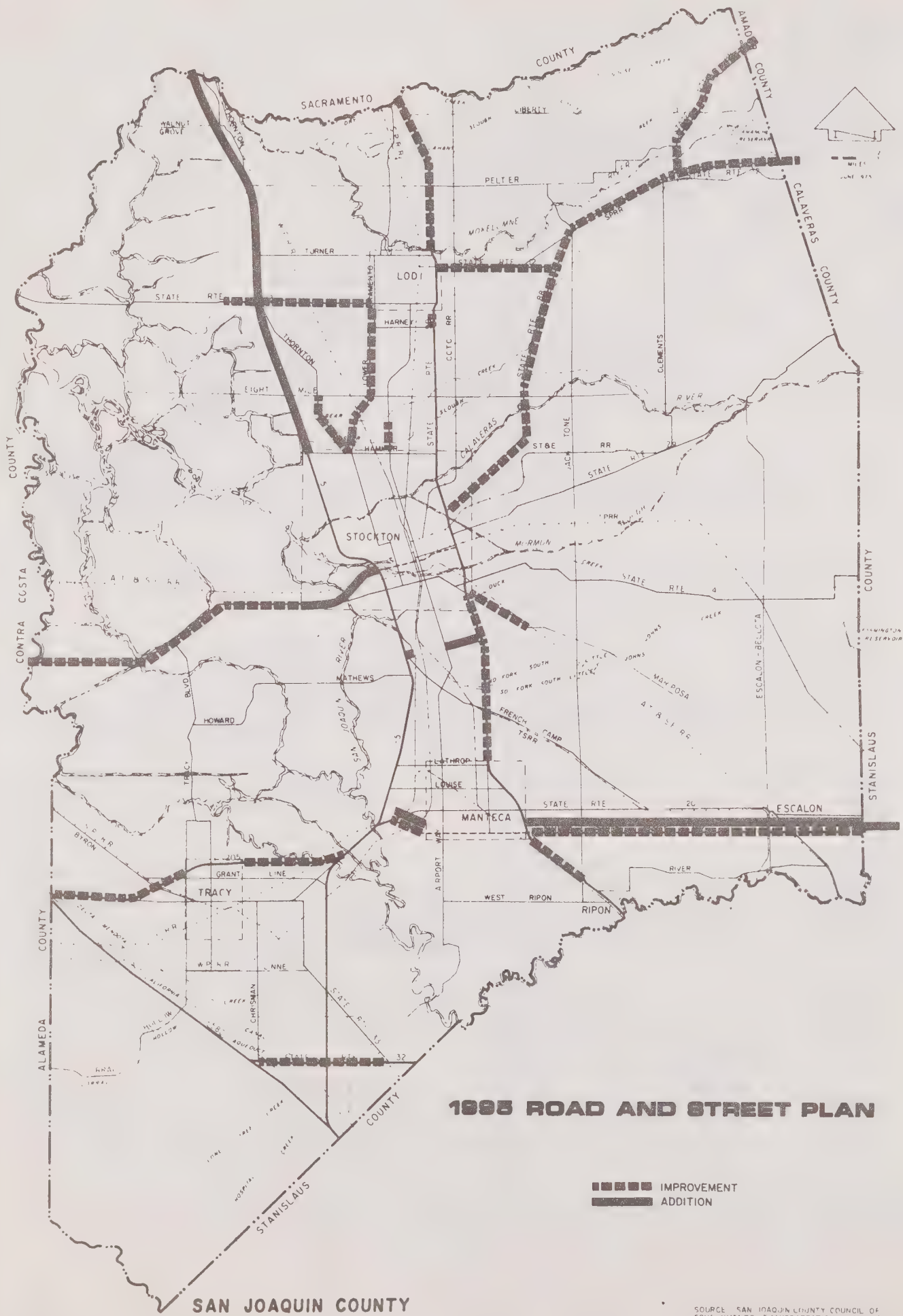
It is recognized that with the present funding constraints the 1995 plan cannot be achieved. Nevertheless, it would be unwise to prepare a plan which is totally dependent on the present funding situation without recognizing the needs.

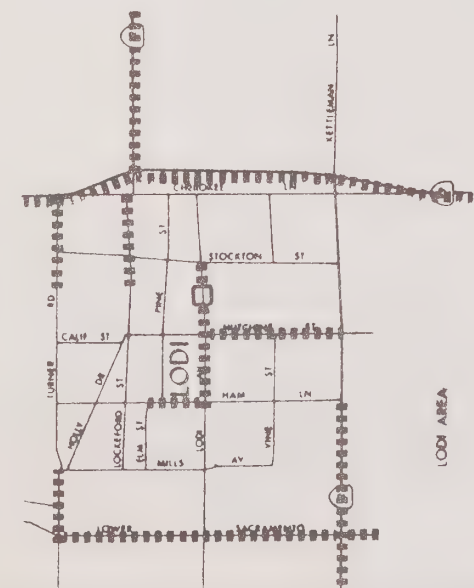
Although most of the problems in accommodating the projected 1995 traffic have been resolved, some areas require further study and action at a later date. In regard to the state highways, these include:

1. Improvement of existing facilities or provision for another overcrossing on Route 99 in Ripon--Because of predicted residential growth on the northeast side of Route 99 and the existing and forecasted commercial and industrial development on the southwest side of Route 99 the travel across Route 99 may increase to exceed the capacities of existing facilities.
2. Extension of the main runway of the Stockton Metropolitan Airport across Route 99 -- This has been expressed as a need that may occur as early as 1985 by the Airport staff.
3. Improvement of Route 4 from Contra Costa County Line to Wilhoit Road and new construction of the connection from Wilhoit to Fresno Avenue -- These projects are included as part of the plan. However, because of conflicting estimates of growth, desires and impacts, further study will be given to these improvements.
4. Improvement of Route 26 -- Except for general maintenance and minor improvement projects, no major future needs were discerned for this State route. However, Linden residents have indicated that an improved route is needed for Linden's economic stability.
5. Route 88 through Lockeford -- Although improvement projects are in the plan for Route 88 on either side of Lockeford, the problem of traffic through Lockeford will remain an issue because of limitations placed on rights-of-way.

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<sup>1</sup>For the Stockton Area see the COG Plan, Phase 1: Stockton Metropolitan Area (13).

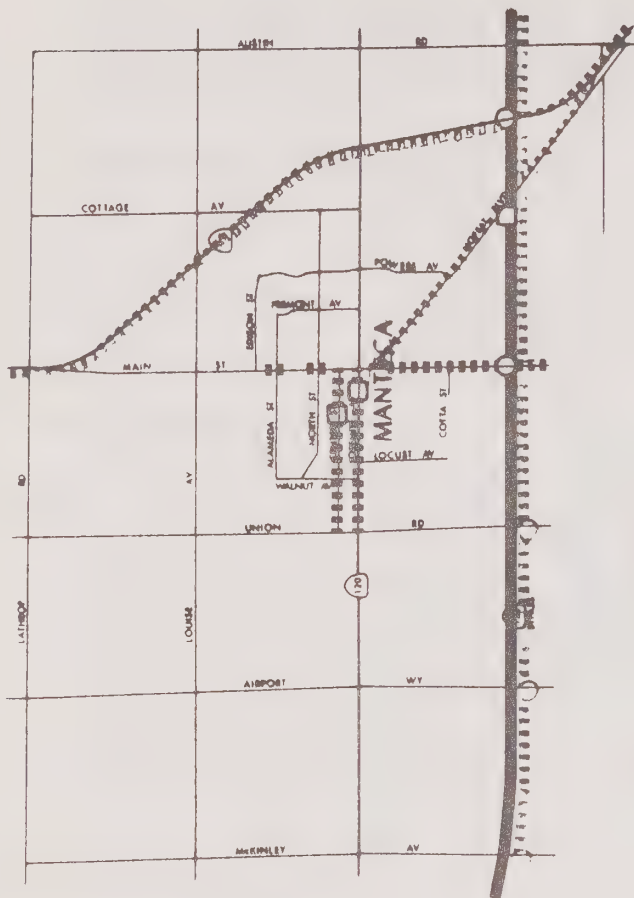




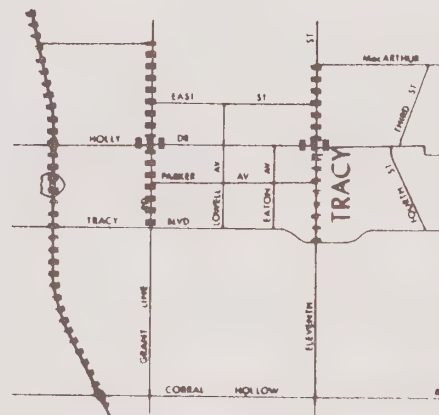
LODI AREA



STOCKTON AREA



MANTECA AREA



TRACY AREA

# 1995 ROAD AND STREET PLAN

- IMPROVEMENT
- ADDITION
- INTERCHANGE CONSTRUCTION
- RAILROAD GRADE SEPARATION

INTERCHANGES AND GRADE SEPARATIONS ARE SHOWN AS SEPARATE ITEMS ON STATE ROUTES

SAN JOAQUIN COUNTY PLANNING DEPARTMENT 6/75  
ADAPTED FROM SAN JOAQUIN COUNTY  
COUNCIL OF GOVERNMENTS 4/75



San Joaquin County Council of Governments  
1995 ROAD AND STREET PLAN (2)

MAJOR ADDITIONS AND IMPROVEMENTS<sup>1</sup>

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LOCATION	1975 FACILITY	PROPOSED FACILITY	LOCATION	1975 FACILITY	PROPOSED FACILITY
STATE HIGHWAYS			SAN JOAQUIN COUNTY ROADWAYS		
Rte. 4 - Center St. to Stanislaus St. <sup>2</sup>	4 Ln.	8 Ln. Fwy.	March Ln. - WPRR to West Ln. (Stage I)	None	2 Ln.
Rte. 5 - Hammer Ln. to Route 12	None	6 Ln. Fwy.	March Ln. - WPRR to West Ln. (Stage II)	Stage I	4 Ln.
Rte. 120 - Rte. 5 to Rte. 99 (Stage I)	2-4 Ln.	2 Ln. Exp. (Bypass)	Alpine Ave. - Stkn. City Limits to Wilson Way	2 Ln.	4 Ln.
Rte. 4 - Stanislaus St. to Rte. 99 <sup>2</sup>	None	6 Ln. Fwy.	Hammer Ln. - West Ln. to Rte. 99	2 Ln.	4 Ln.
Rte. 5 - Rte. 12 to Sacramento Co. Line	None	4 Ln. Fwy.	Hammer Ln. - at SPRR	At Grade	Grade Sep.
Rte. 12 - Ray Road to Ham Ln.	2 Ln.	2 Ln.	March Ln. - Rte. 5 to W. Stkn. City Limits	2 Ln.	4 Ln.
Rte. 99 - Wilson Way Interchange	"Y"	Reconst. Interchange	Moffat Blvd. - Manteca City Limits to Rte. 99	2 Ln.	2 Ln.
Rte. 120 - Rte. 99 to Stanislaus Co. Line (Stage I)	2 Ln.	2 Ln. Exp. (Bypass)	Lower Sacramento Rd. - Morada Rd. to Turner Rd.	2 Ln.	4 Ln.
Rte. 99 - March Ln. Interchange	Loop Conn.	Reconst. Interchange	Sperry Industrial Corridor - Rte. 5 to McKinley Ave.	None	4 Ln.
Rte. 88 - Jct. Rte. 12 & 88, W. of Lockeford to Jct. Rte. 12 & 88, E. of Clements	2 Ln.	4 Ln.	Swain Rd. - WPRR to West Ln.	None	4 Ln. Grade Separation
Rte. 4 - Contra Costa Co. Line to Wilhoit Rd.	2 Ln.	2 Ln.	Mariposa Rd. - Charter Way to Austin	2 Ln.	4 Ln.
Rte. 4 - Wilhoit Rd. to Fresno Ave.	2 Ln.	4 Ln. Fwy.	Thornton Rd. - Pacific to Eight Mile Rd.	2-4 Ln.	4 Ln.
Rte. 88 - Rte. 99 to Jct. Rte. 12 & 88, W. of Lockeford	2 Ln.	4 Ln.	March Ln. - West Ln. to Rte. 99	0	4 Ln. Grade Separation
Rte. 120 - Rte. 5 to Rte. 99 (Stage II)	2 Ln. Exp. (Stage I)	4 Ln. Fwy.	West Ln. - Calaveras River to Morada Ln.	4 Ln.	6 Ln.
Rte. 99 - Jack Tone Rd. to Cherokee Rd.	4 Ln. & Fwy.	6 Ln. Fwy.	West Ln. - at SPRR	At Grade	Grade Sep
Rte. 99 - 0.1 Mi. N. of Harney Ln. to Sac. Co. Ln.	4 Ln. Fwy.	6 Ln. Fwy.	Alpine Ave. at SPRR	At Grade	Grade Sep
Rte. 88 - Jct. Rte. 12 & 88, E. of Clements to Amador Co. Ln.	2 Ln.	4 Ln.			
Rte. 12 - Jct. Rte. 12 & 88, E. of Clements to Calaveras Co. Ln.	2 Ln.	4 Ln. Exp.			
Rte. 12 - Terminous to Guard Rd.	2 Ln.	4 Ln. Exp.			
Rte. 12 - Rte. 99 to Jct. Rte. 12 & 88, W. of Lockeford	2 Ln.	2 Ln. Exp.			
Rte. 132 - Rte. 580 to Rte. 33	2-4 Ln. Exp.	4 Ln. Exp.			
Rte. 120 - Rte. 99 to Stanislaus Co. Line (Stage II)	2 Ln. Exp. (Stage I)	4 Ln. Fwy.			
Rte. 205 - Alameda Co. Line to Rte. 5	4 Ln. Fwy.	6 Ln. Fwy.			
			INCORPORATED CITIES		
			See COG Road and Street Plan		

6. Designation of March Lane as State Route 235 or State's participation in new construction or reconstruction of March Lane.
7. Designation of Sperry Road-Industrial Way Corridor as State Route 234 or State's participation in the construction of a connection between I-5 and Route 99 in the vicinity of Sperry Road.

#### IMPLEMENTATION OF THE ROAD AND STREET PLAN

##### Improvements and Construction

As funding becomes available, the capital improvement programs of the responsible agencies will be effectuated. As noted previously, adequate funding is one of the unresolved issues of the plan.

##### Specific Plans

Specific Plans have been prepared for a number of city and county roads and streets. It is recommended that plans be prepared for those collectors and arterials which do not yet have them. A specific plan for a road may establish an ultimate right-of-way, grade separations, access points, and other design features. Once a plan has been adopted, the development of adjacent lands requires conformity to the standards adopted in the specific plan. Early adoption of these plans establishes uniform standards for the review of development proposals and protects both the public and the private individual from later expense and/or inconvenience. In urban areas the County and the city will continue to work together and mutually adopt specific plans for roadways.

The Board of Supervisors have adopted specific plans for the following roadways or portions thereof:

Airport Way	Lathrop Road
Century Boulevard	Lincoln Road
Clarane Avenue	Lower Sacramento Road
Country Club Boulevard	March Lane
Crestwood Boulevard	Micke Grove Road
Filbert Street	Santa Fe Road
Fresno Avenue	Thornton Road
Golden Gate Avenue	Turner Road
Ham Lane	Union Road
Hammer Lane	West Lane
	Wilma Avenue

##### Development Review

Whether a private or a public project, a proposal for development should have thorough review in order to ensure that it conforms to the policies of the general plan and any specific plan. Both the County Subdivision Ordinance and the Street Improvement Ordinance No. 672 provide requirements for street improvements and completion in subdivisions. The Government Code of the State of California (Section 65402) requires that the Planning Commission review public projects as to the conformity with the general plan and report to the Board of Supervisors.

## PUBLIC TRANSIT

For many persons who lack use of an automobile, public transit is the only means of transportation. These people, particularly the young, low-income, elderly, and handicapped, could be called the transportation disadvantaged. The most important and critical short-range need for public transit in San Joaquin is for this group of people.

FIGURE 44

TRANSPORTATION DISADVANTAGED <sup>1</sup>						
	Percent of Households With No Autos	Percent of Households With 1 Auto	No. Over 65	No. Between 10-15	Handi- capped	No. of Persons in Households Below Poverty Level
Stockton	20%	43%	12,380	12,000	10,000	18,200
Lodi	13	46	4,115	3,855	600	2,050
Manteca	9	45	1,300	1,900	520	1,025
Tracy	9	54	1,450	1,670	800	1,242
Escalon	9	46	675	960	281	760
Ripon	11	51	600	920	40	488
<sup>1</sup> "Disadvantaged" refers to those persons who do not ordinarily have access to an automobile.						
Source: Peat, Marwick, Mitchell & Co., analysis of data supplied by U.S. Bureau of Census and San Joaquin County Council of Governments. Originally published in <u>COG Transportation Plan, Volume III, "Public Transit Plan,"</u> April, 1975.						

One of the reasons for implementing transit systems is to encourage persons to ride transit and use their automobiles less. People can often be encouraged to use a transit system if it offers greatly reduced total trip travel times when compared to the automobile. San Joaquin County has an adequate highway network with accessibility to most locations and therefore a transit travel time advantage would not be likely to occur even if transit in the urban areas is given some form of priority, for example bus lanes. Transit will only have an advantage if restraints, such as availability of fuel and parking, are placed on the automobile.

### ASSUMPTIONS

For the preparation of the transit plan, it was assumed that people will generally:

- not walk more than 1/4 mile to a bus in an urban area
- desire to travel the fastest route to their destination
- prefer not to transfer
- prefer to wait for transit service at their home than on a street corner
- be willing to pay a nominal fare for transit even if on fixed or very limited income
- be attracted by convenient, attractive, and efficient service which meets their needs



## EXISTING INTRA-CITY PUBLIC TRANSIT

Bus and taxi-cabs comprise the existing public transit mode with a limited network.

With the exception of school bus service, the only city bus service in the County is provided by the publicly-owned and operated Stockton Metropolitan Transit District.

The transit study which was conducted by the COG in 1974 (3) concluded that this system has relatively good coverage in terms of walking distance to a bus line, but relatively indirect service. In 1972, approximately 83% of the Stockton metropolitan area's population and 94% of its employment was within one-quarter mile of a bus route, nevertheless, ridership is low. About 89% of the current riders of the system have no alternative because they do not have access to automobiles. Much of the transit service has long intervals of from 40 to 60 minutes between buses. For most people currently using the transit service, the ease of reaching their destinations is reasonable, but the transfer times between routes are often considerable and travel times are lengthy due to the indirectness of bus routes.

The COG study concluded that the needs of segments of the population for transit service is greater than the service available today. Two of the most neglected segments of the community are the handicapped and senior citizens. Except for taxi-cabs and ambulance service, there is no public service provided for the handicapped. Approximately 12,200 handicapped persons in the County's urban areas must wait for others to transport them, use taxis which are expensive for single person trips or travel by ambulance or not at all. The senior citizen has transportation in Stockton if the person is able to climb into the bus; however, many are limited to using the taxi which averages about \$1.65 per trip in Stockton. The total number of senior citizens in the urban areas is approximately 20,500. These two groups are the most severely limited by not having access to an automobile.

Taxi-cabs operate in Stockton, Lodi, Tracy, and Manteca. In areas where transit service is less than adequate, residents without access to automobiles often use taxis as the only available transit system. This means that transportation-disadvantaged residents pay more for transit service than others with adequate transit service or access to automobiles. They are often the ones who can least afford extra costs.

At the present time all bus service operates on fixed routes. Although fixed bus routes operate more efficiently than demand-responsive service in areas of high passenger demand, it has been shown that demand-responsive service operates more efficiently than fixed routes in areas of low passenger demand. Demand-responsive service provides door-to-door transportation in a multi-passenger vehicle. Service is available on call, and routes and times are variable depending on the number and location of persons requesting the service. Therefore, depending on the anticipated ridership in some cases fixed routes have been recommended and in other cases they have not, depending on the anticipated ridership.

## EXISTING INTERCITY TRANSIT

Intercity bus service, both within San Joaquin County and to cities outside the County, is provided by Greyhound and Continental Trailways bus systems. The current intercity schedules and travel times indicate a significant level of intercity service that is currently being provided to the city centers of Lodi, Stockton, Manteca, and Tracy. Service is limited to Escalon and to Ripon and no service exists for other urban centers in the County. Also, there are several major centers of County services and employment that are not served by intercity bus--such as the County Hospital, Deuel Vocational Institute, Sharpe Army Depot, California Youth Authority, Tracy Defense Depot, and major industries located outside the urban areas of the County. There is insufficient estimated ridership between cities to warrant establishment of publicly operated intercity routes between the cities within the County.

To areas outside the County, bus service is provided by Greyhound and Continental Trailways Bus Lines, Amador Stage Line, and Calaveras Transit Company. A special study has been made of the corridor between the Sacramento-Stockton-San Francisco area. Intercity travel within this area is now dominated by the automobile with over 95% of the trips made by private automobile. An intergovernmental study conducted during 1974 (18) indicated that it is not feasible to establish fixed rail routes between Stockton and the other areas.

AMTRAK provides intercity rail service consisting of one train per day in each direction. The Santa Fe roadbed is used, with stops in Oakland, Martinez, Stockton, Riverbank, Merced, Fresno, and Bakersfield. AMTRAK does not provide any intercity service within San Joaquin County, but may be of use to San Joaquin County residents for trips outside the County. There are no immediate plans to expand the number of stops or frequency of service on the AMTRAK route through the County over the initial two-year service period.

## 1980 TRANSIT PLAN

Since service improvements were seen as a pressing, immediate need, the plan concentrated on these and the implementation program was prepared only to 1980.

A definite need for public transit has been established in the Stockton, Lodi, and Tracy areas. This need can be reasonably met with funds established by the Transportation Development Act of 1971 and Urban Mass Transportation Act. The most important and critical short-range need is for the transportation disadvantaged (elderly, handicapped, low income, and youth). In Manteca, low demand indicates that there is insufficient need to establish a publicly subsidized system. However, there is an important, but small elderly population that needs reduced fare assistance.

The major plan recommendations are summarized below for each area where a need has been demonstrated:

Stockton: Service will consist of both new and revised fixed routes and demand-responsive service. Demand-responsive service can be provided by a shared taxi or minibus and is recommended for handicapped service and for





service to the general public between 7 p.m. and 10 p.m. It is estimated that annual ridership by 1980 will be 1,969,000 people and that 44 full-sized buses and 27 small vehicles will be required to operate the new routes and the demand-responsive service.

Lodi and Tracy: Service will be provided by a demand-responsive system. The cities of Lodi and Tracy are currently conducting studies of their own to determine precisely how the systems should be operated. It is estimated that annual ridership by 1980 in Lodi will be 115,000 people, requiring four small vehicles and in Tracy, 77,000 people, requiring two small vehicles.

Intercity Transit: The plan calls for improved Greyhound bus service from the San Leandro BART station to Stockton via Livermore and Tracy. If this is successful, the service would be extended to Sacramento via Lodi. It is recommended that the service be hourly and that the stops be located adjacent to the freeways. City bus service will provide access to these express bus stops.

## BIKEWAYS

Until recently non-motorized bicycle transportation has not been considered a serious mode of travel in this country. Within the last few years there has been a large increase in sales, particularly in multiple-speed "adult" bikes. Bicycles are being used not only for health and recreational purposes but also for daily transportation. Unfortunately, the rise in bicycle use has resulted in an accompanying rise in accidents, injuries and deaths.

Bikeway is the general term used to designate all facilities that explicitly provide for bicycle travel. The following definitions define three classes of bikeways:

- 1) Bike Path - a specifically designated area for bicycle travel separated from the roadway.
- 2) Bike Lane - a lane within the roadway designated for the one-way use by bicycles.
- 3) Bike Route - a street identified by signing only for bicycle use.

There are currently nearly 70 miles of bikeways in San Joaquin County. With the exception of 16 miles of bike paths along the California Aqueduct in the western portion of the County, the bulk of these facilities are bike routes and are found in the cities of Stockton, Lodi, Tracy and Escalon. Figure 45 summarizes the San Joaquin County bikeway system for the base year of 1973.

It is clear that only limited bikeway facilities exist today. Without funding for new projects, adequate and safe facilities will be non-existent for this mode of transportation. Federal and State funding sources are presently limited; therefore, the cost of bikeways must be borne by local government. With this financial constraint, there are nevertheless several things that can be done to improve the situation for the bicycle as a form of transportation (5).

FIGURE 45

BIKEWAY SYSTEM, 1973 SAN JOAQUIN COUNTY			
Area	Bike Route	Bike Lane	Bike Path
Stockton	28 miles		1 mile
Lodi	13 miles		
Tracy	10 miles		
Manteca			
Escalon	1.5 miles		
Ripon			
San Joaquin County Area			16 miles*
Total	52.5 miles	0	17 miles
*California Aqueduct Bike Path			

In terms of land use planning, bicycle generators (such as schools and recreation areas) should be identified and priority routes established for improvements. Route should also be established for recreational travel, with both short-distance and long-distance bike touring opportunities provided. In addition to routes around and between the cities, routes to the Delta and to the mountains should be identified and related to routes in other counties. As new roads are built or existing roads are widened, consideration should be given to the adequate provision for future bikeways. Public property, no longer needed for the use originally intended, may be appropriate for bikeways; for example, prior to abandonment of a right-of-way its use as a bike path should be analyzed. In new developments, private and public, provisions for safe bike access and parking should be considered.

A Bicycle Coordinating Committee will be formed this year by the COG to continue the system planning in the County.



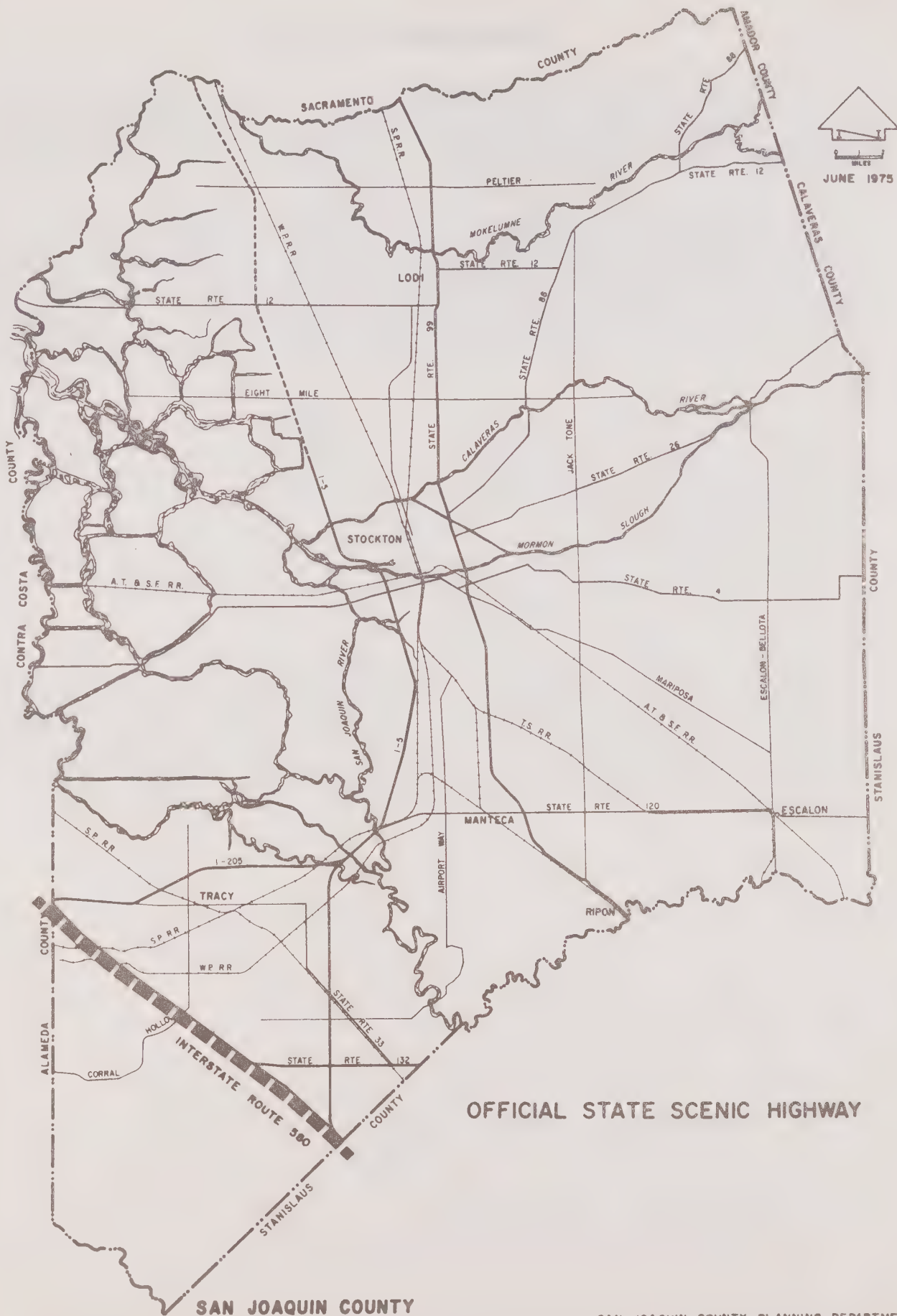
## RECREATIONAL TRAVELWAYS

People travel as a form of recreation by car, bike, boat, and even by bus. The route on which they travel is an important part of their recreational experience; for those without a specific destination, the route becomes the total experience. Whether the route is a roadway, bikeway, or waterway, it has certain visual attributes which may be valuable to the traveler.

A total study needs to be made of all aspects of recreational travel and travelways. The Open Space/Conservation Element of the General Plan has recognized the need for protection of the Delta waterways, which are the County's major boatways. The rivers, especially the Mokelumne and the Stanislaus, are used by floaters and canoers, in increasing numbers each year. Waterway travel will be dealt with in the Recreation Element, to be revised next year. Bikeways will also receive individual attention as the COG continues the bikeway planning program.

A Scenic Highway Element is currently being prepared for the County by the Council of Governments. The Element will concentrate on routes of local or regional significance, rather than on routes having statewide importance. There are certain portions of roadways, not necessarily the entire length of an individual road, which are of importance for recreational travel. Criteria will be developed to assist in identifying these routes, which may be enroute to a recreational area or simply through an area which is visually attractive and typical of San Joaquin County. Methods will be recommended to protect the view from the road and, in some cases, to enhance them.

The State has developed a scenic highway program which includes a master plan illustrating State routes eligible for designation as scenic highways (17). In San Joaquin County Interstate 580 and a short stretch of I-5 are eligible. The County has met State standards for route protection by applying a Scenic Corridor Zone over the underlying zone to ensure preservation of scenic values within the visual corridor of the route, which is now marked with a poppy sign, the official sign designating acceptance into the State system (Map 28).



OFFICIAL STATE SCENIC HIGHWAY

SAN JOAQUIN COUNTY

SAN JOAQUIN COUNTY PLANNING DEPARTMENT

MAP NO. 28

## AIRPORTS

The aviation system in the County serves many needs, from regularly scheduled commercial air passenger and freight service to private business, recreation, agricultural crop dusting service, and military operations. It is assumed that during the planning period there will be increased growth and demand for general aviation as well as for air carrier service. It is also assumed that social and physical environmental factors will continue to play an important role in the development of aviation facilities.

In 1970 the County adopted an Airport Segment of the General Plan (11). More recently the County Council of Governments has prepared an Airport Land Use Plan (10) and adopted an Aviation System Plan (4). These latter two documents provide the basis for a plan summary presented here.

### EXISTING SYSTEM

There are seven airports in the County that can be considered "public use" airports. They are listed in Figure 46 and shown in Map 29. Other airports include that at Sharpe Army Depot and many private land strips, mainly serving agricultural crop dusters.

#### Stockton Metropolitan Airport

The County-owned Stockton Metropolitan Airport is the only airport in the County receiving commercial air carriers. It functions as a collection point for air travelers from several mountain counties, Stanislaus, southern Sacramento, and eastern Contra Costa Counties as well as from San Joaquin, and provides access to the national air transportation system. The majority of flights originating or terminating in Stockton are under 600 miles in length. San Francisco, Oakland International, and Sacramento Metropolitan Airports are relied upon for connections to longer flights.

The airport is located on approximately 1,800 acres, surrounded by agricultural and industrial land. The main runway, 8,650 feet in length, handles commercial, military, and jet training flights as well as general aviation. This runway is paralleled by a 3,000 foot general aviation runway. Since the two runways are too close to meet present FAA standards, the general aviation runway is to be phased out. Recently, 250 acres have been added to the airport property in order to develop a new general aviation facility near the Arch-Airport Road interchange with Route 99.

In addition to the airfield complex, the airport's other facilities include the following: 41 "T" hangers, 15 shelters, and 171 tie down spaces; a 60,280 square foot terminal building housing restaurants, car rental outlets, a flight service station, the weather bureau, airline service counters, and the airport's administrative offices, and a 3,000 square foot security concourse. Five fixed-base operators provide charter flights, flying instruction, and agricultural and fire fighting services as well as airframe and powerplant repairs for general aviation aircraft.

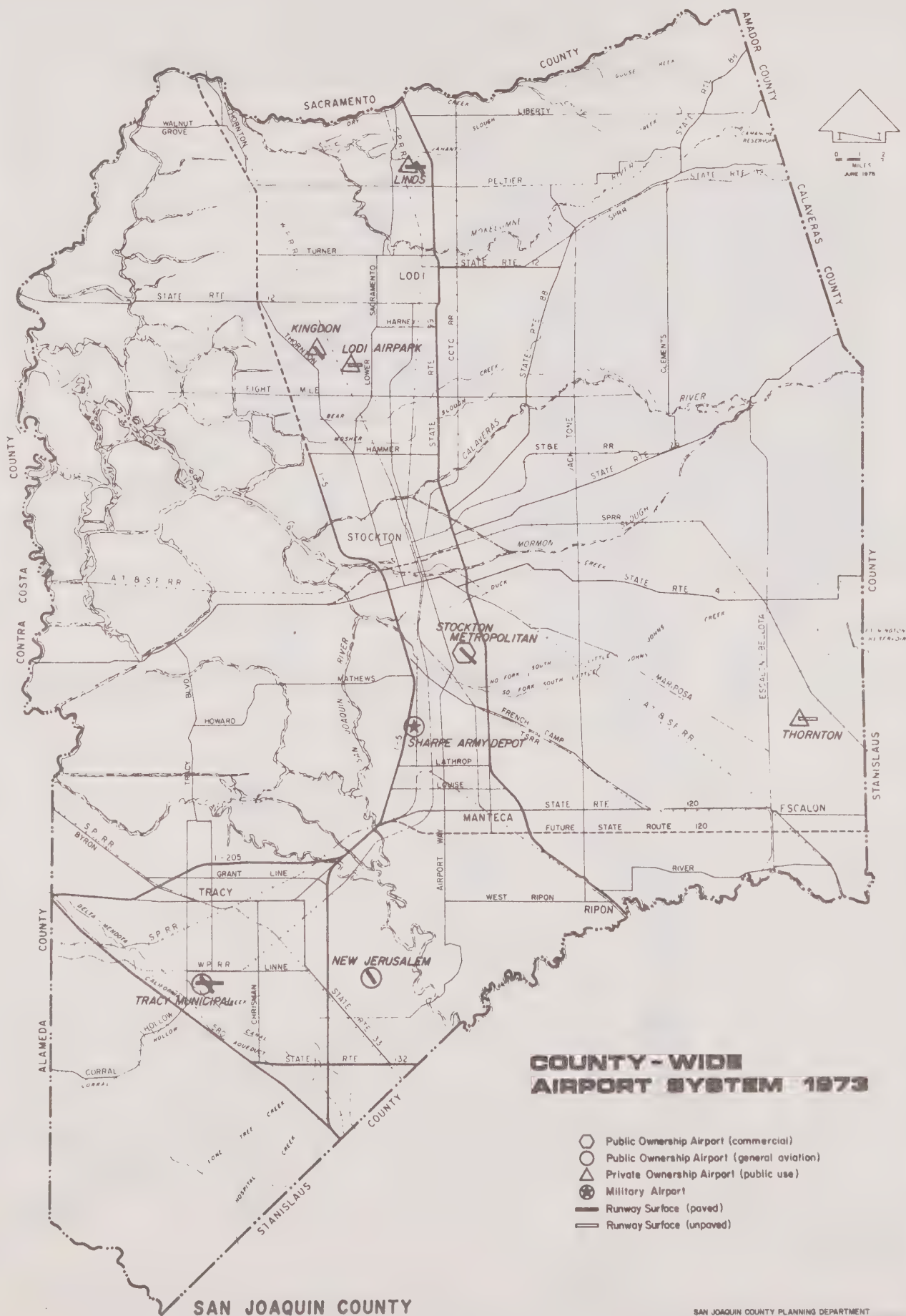


FIGURE 46

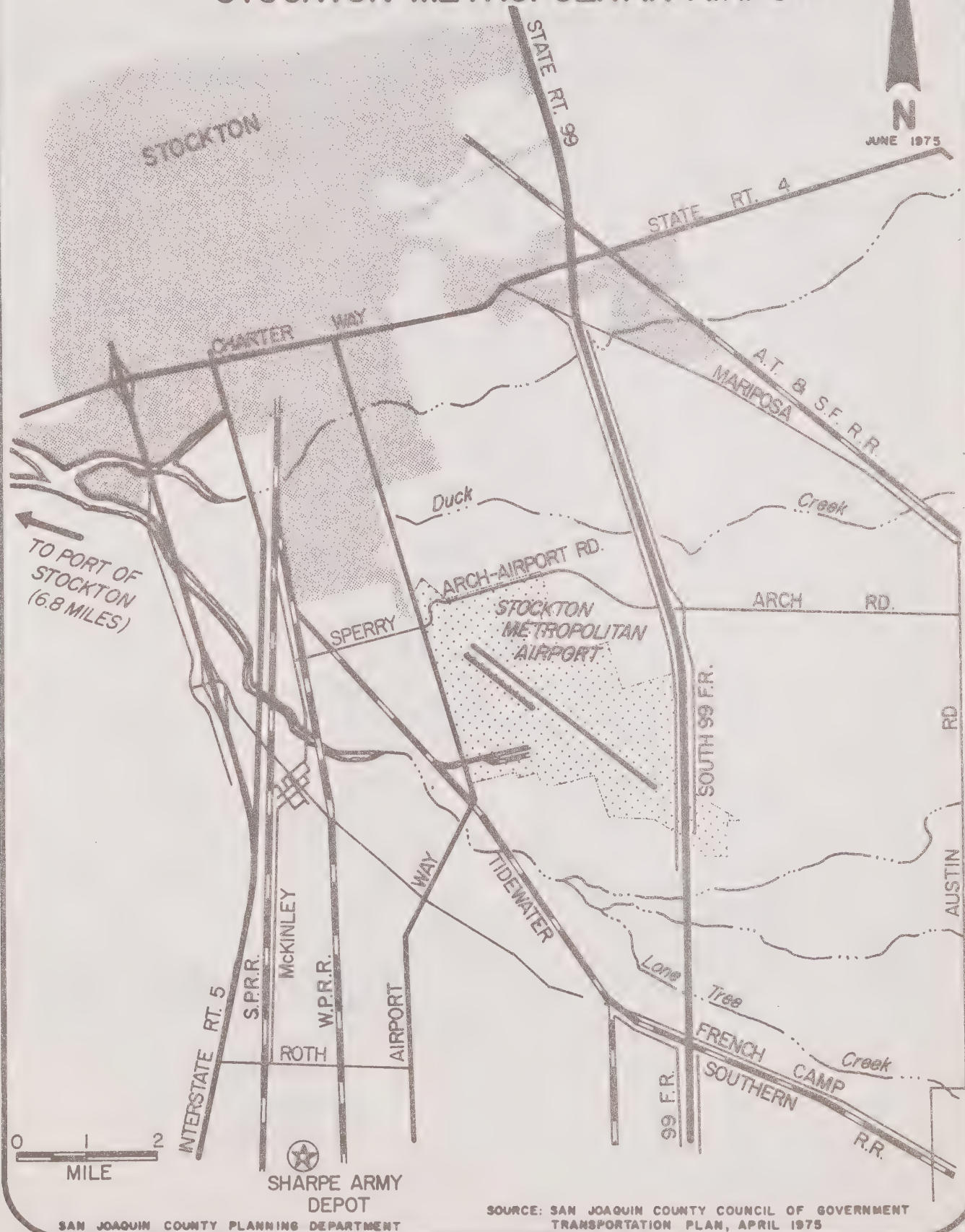
SAN JOAQUIN COUNTY PUBLIC ACCESS AIRPORTS, 1973				
Name	Ownership	Based A/C	Operations <sup>2</sup>	Airport Classification <sup>3</sup>
<u>Secondary Air Carrier<sup>1</sup></u>				
Stockton Metropolitan	Public	120	133,000	Domestic Transport
<u>Community Service</u>				
Tracy Municipal	Public	43	47,900	General Utility
Lind's	Private	51	46,000	Basic Utility I
<u>Local Area Service</u>				
Kingdon Airpark	Private	6	4,000	Basic Utility II
Lodi Airpark	Private	15	17,600	Basic Utility I
New Jerusalem	Public	0	4,000	General Utility
Thornton	Private	0	1,500	Landing Strip
<sup>1</sup> Functional classification, an identification and categorization of airports on the basis of their primary function or purpose.  <sup>2</sup> FAA Form 5010 estimates, Control Tower counts, California Master Plan of Aviation estimates, and owner estimates.  <sup>3</sup> From California Master Plan of Aviation, based on FAA categories with runway length corrected for temperature, elevation and gradient; and gross weight criteria being used as a measure of airport capability.				

An industrial park is being developed on the southwest corner of the property. Future plans include the development of air cargo handling facilities, which are badly needed.

Three commercial airlines presently serve the airport: United Air Lines, Hughes Airwest, and Pacific Southwest Airlines. There were 122,223 enplaned and deplaned passengers in 1973. Commercial or air carrier flights, however, accounted for only 5 percent of all activity at the airport. Of the 132,973 total 1973 annual operations, 6,985 were air carrier; 17,210 or 13 percent were military; and 108,778 or 82 percent were general aviation.



# ACCESS ROUTES TO STOCKTON METROPOLITAN AIRPORT



SOURCE: SAN JOAQUIN COUNTY COUNCIL OF GOVERNMENT  
TRANSPORTATION PLAN, APRIL 1975

MAP NO. 30



In terms of connecting transportation routes, the airport is adjacent to State Route 99 with another freeway, Interstate 5 located two and one-half miles to the west (Map 30). Tidewater Southern Railroad has a spur line running into the airport industrial park. The recent construction of Arch-Airport Road has provided excellent accessibility to Route 99, but the access to Interstate 5 is still circuitous. This problem is scheduled to be studied further during 1976.

#### Tracy Municipal Airport

Tracy Municipal Airport, a 310 acre general utility airport owned by the City of Tracy, is used solely by general aviation flights. It has two operational runways, one having low-intensity lighting. Services and facilities include: a few hangars, tie down area, service by one fixed base operator, minor aircraft repair, agricultural services, flying instruction. In 1973 the airport saw a total of 47,900 operations with 43 based aircraft.

Access to the airport is off of Tracy Boulevard just south of Linne Road. The area's most prominent land uses are excavations and agriculture. The airport itself is located over valuable gravel deposits.

#### New Jerusalem Airport

New Jerusalem Airport, a 352 acre general utility airport, is also owned and operated by the City of Tracy. Located approximately eight miles southeast of the city, the airport is unattended and is used primarily for agricultural purposes. It has one asphalt-paved runway 4,000 feet in length paralleled by a similar facility which has been closed to aviation use.

In 1973, there were 4,000 operations at the airport, but no aircraft were based there. The City of Tracy intends to maintain the field but has no plans for expansion of the facilities. Access is via Kasson Road. The surrounding land is used primarily for agriculture with a scattering of gas wells and a few residences.

#### Linds Airport

This privately-owned and operated basic utility airport is located four and one-half miles north of the City of Lodi on State Route 99 at Jahant Road, south of Collierville. Facilities and services include: "T" hangars as well as conventional hangars and tie down areas, a terminal, restaurant, two fixed based operators, agricultural services, flying instruction, aircraft rentals, minor airframe and powerplant repair services. The airport is almost as active as is Tracy, providing service such as agricultural dusting and spraying, flying instruction, and aircraft rentals. In 1973, there were approximately 46,000 general aviation operations, with 51 based aircraft.

The airport has some existing and potential land use conflicts. Although there are two runways, one is obstructed by power lines along Jahant. The approach to the other runway was improved with the undergrounding of power lines; however, approaching the airport for a landing over Route 99 can make even an experienced pilot nervous. Other land use conflicts would result if presently approved residential development to the north actually occurred. At this time the land to the north, west, and south is predominately agricultural.

### Lodi Airpark

This privately-owned basic utility airport is utilized for agricultural dusting and spraying, the primary service of the fixed base operator.

### Kingdon Airpark

The airport is well situated to provide service to North Stockton and Lodi. There are no obstructions or incompatible land uses in the surrounding agricultural area. At times the runway is used for drag races.

In the past the airport has been closed primarily because of financial difficulties inherent in maintaining and expanding a privately owned, public access airport. The desirability of the eventual public acquisition of Kingdon needs to be studied.

### Thornton Airport

Thornton Airport, an 11 acre privately-owned landing strip, is located in the southeastern portion of the County, near Escalon. The airport is primarily used for agricultural dusting and spraying and for mosquito control operations.

In 1973 there were approximately 1,500 operations, all of these performed by single-engine propeller aircraft. No aircraft are based at the airport.

### AVIATION DEMAND

The present demand for both commercial and general aviation facilities is being fulfilled by existing airports, although in some cases expansion of facilities might encourage additional usage. Stockton Metropolitan Airport is presently somewhat limited in operational capacity which, however, should not present long-range problems. The possible need for extension of its main runway to the southeast over Route 99 remains an unresolved issue.<sup>1</sup> Tracy Airport is also limited in expansion possibilities because of a lack of available undeveloped land.

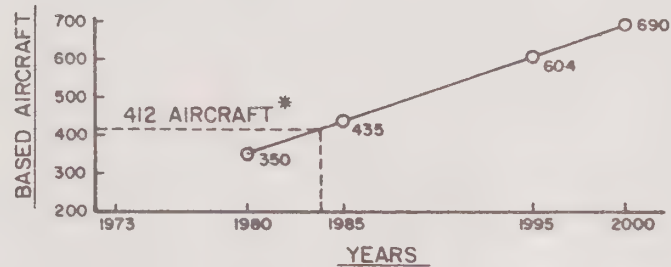
By 1995, both commercial air activity and general aviation are expected to increase significantly (Figure 47). Stockton Metropolitan Airport will continue to accommodate all the commercial traffic. The general aviation demand however is expected to exceed existing capacity. Whereas at the present time the County's airports have capacity for 412 based aircraft, spaces for 604 will be needed to serve the 1995 need for San Joaquin County alone. Existing space limitations may be reached by 1984. By adding demand which cannot be accommodated in neighboring counties, but which could conveniently be served in San Joaquin (over 400 additional aircraft by the year 2000), the situation becomes considerably more pressing if the demand is to be met.

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<sup>1</sup>The extension of the runway to the southeast would permit the landing of heavier cargo jets. The effect of a longer runway on the noise impact should be analyzed.

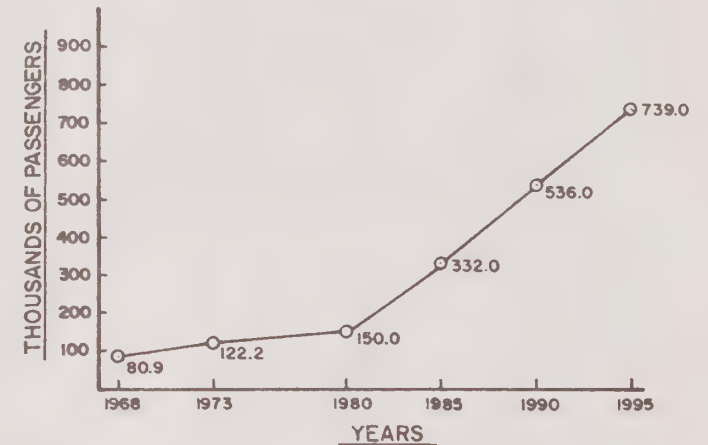
FIGURE 47

### UNCONSTRAINED GENERAL AVIATION DEMAND SAN JOAQUIN COUNTY

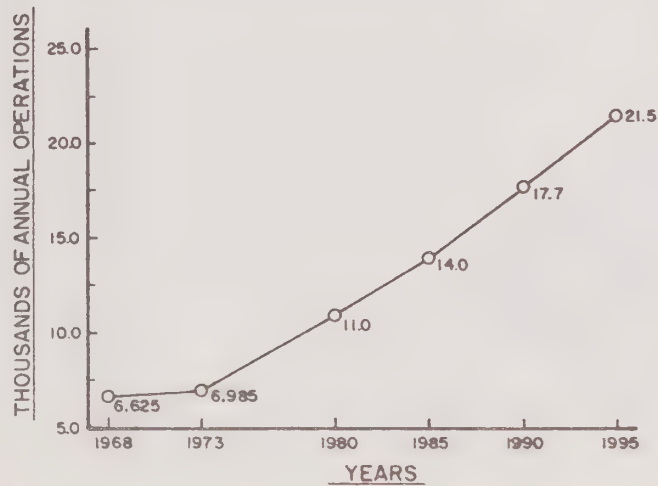


\* Existing based aircraft space

### STOCKTON METROPOLITAN AIRPORT PASSENGER PROJECTIONS (enplaned and deplaned)



### STOCKTON METROPOLITAN AIRPORT AIR CARRIER PROJECTIONS



### AVIATION PROJECTIONS

SOURCE: SAN JOAQUIN COUNTY  
COUNCIL OF GOVERNMENTS  
TRANSPORTATION PLAN 4/75



Kingdon Airpark could satisfy much of the demand for added general aviation facilities. Public or private acquisition of Kingdon has been recommended in the COG Aviation System Plan.

Although Lodi Airpark and Thornton are expected to experience only slight growth, Tracy Municipal and Stockton Metropolitan should be available to absorb the remainder of the anticipated general aviation demand. The future of Lind's Airport is uncertain, since there are potential land use conflicts and the doubtful financial feasibility of continued private ownership of any airport. If it does remain in the aviation system, it can support only modest growth. New Jerusalem is expected to continue as basically an agricultural strip.

#### LAND USE REGULATIONS

Airports are subject to special land use regulations. These include provisions of the County Airport Zoning District regulations by the Airport Land Use Commission. Also, since aircraft are noise generators, State noise standards have an impact in the area surrounding airports.

##### Airport Zoning

The County Zoning Ordinance No. 850 contains an Airport Zone, for application around airports in addition to the underlying zone. The zone mainly restricts heights near the airport and specifies the distance which places of public assembly must be from the aircraft approach surfaces. The zone has been applied around both the Stockton Metropolitan Airport and the Tracy Municipal Airport.

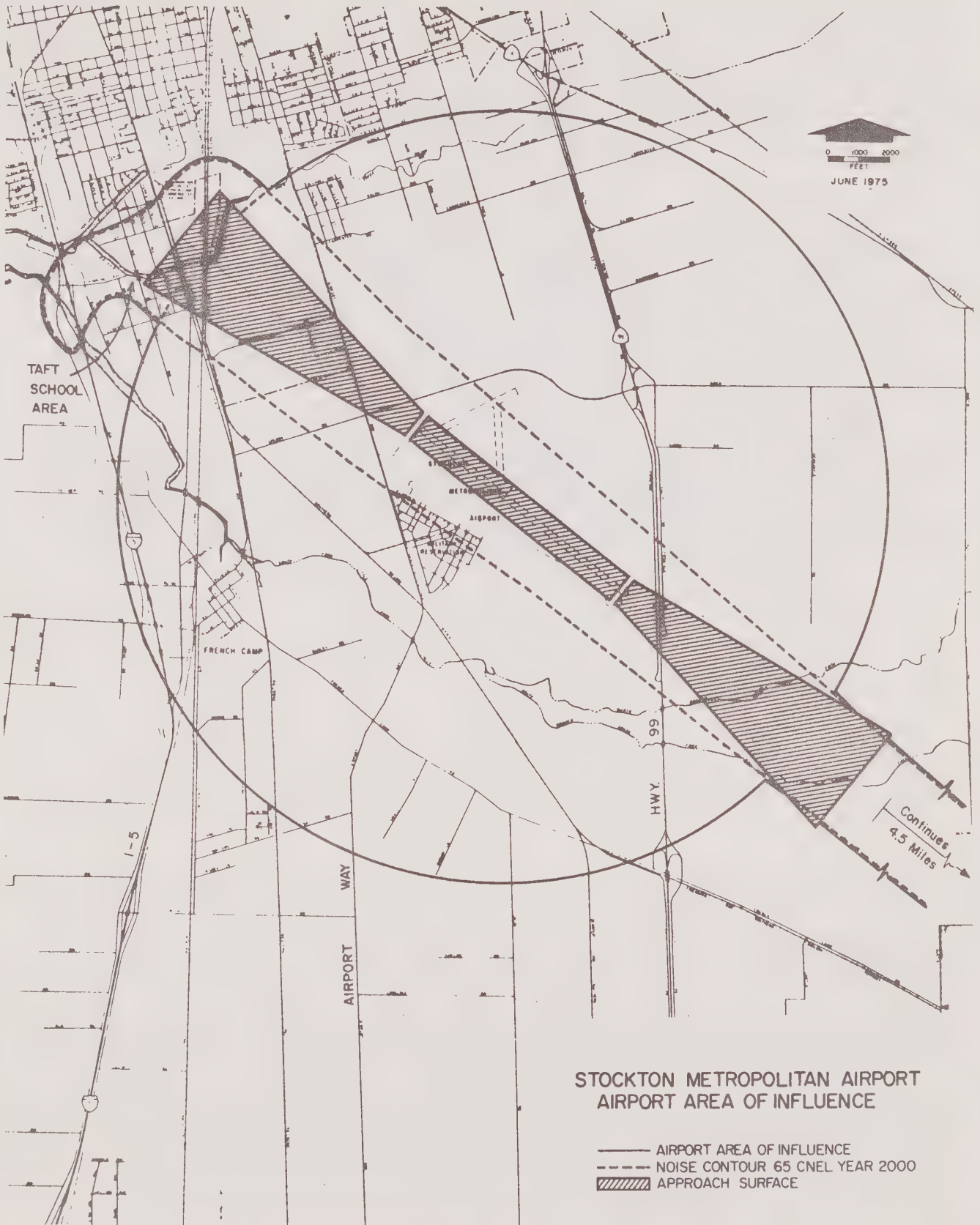
##### Airport Land Use Commission

The San Joaquin County Airport Land Use Commission (ALUC)<sup>1</sup> is responsible for preparing a comprehensive land use plan for airports. The plan which has been prepared is primarily a policy plan, leaving specific plan map preparation to the cities and the County (10). Within its area of influence, ALUC will review all development proposals which are inconsistent with its plan. The Area of Influence around each airport is a combination of airport surfaces (including approach and horizontal surface) and noise impact boundary. Map 31 shows the Area of Influence around Stockton Metropolitan Airport. The Area of Influence around Tracy Municipal Airport contains mainly land planned for agricultural use.

ALUC is mainly concerned with the incompatibility of uses, determined by hazard conditions or noise conditions. The former involves the impact of safety considerations associated with the take-off and landing of aircraft. The latter is a major consideration which must take into account the intensity of noise, the duration and frequency of occurrence, level of background noise, and the activity in which the individual is engaged.

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<sup>1</sup>The State Public Utilities Code requires that an Airport Land Use Commission be created in each county having at least one airport served by a commercial air carrier. In San Joaquin County the COG serves as the ALUC.



# STOCKTON METROPOLITAN AIRPORT AIRPORT AREA OF INFLUENCE

- AIRPORT AREA OF INFLUENCE
- - - NOISE CONTOUR 65 CNEL YEAR 2000
- /// APPROACH SURFACE

SOURCE:  
ADAPTED FROM SAN JOAQUIN COUNTY  
COUNCIL OF GOVERNMENT AIRPORT  
LAND USE PLAN MAY 1975

SAN JOAQUIN COUNTY PLANNING DEPARTMENT

## Noise Standards and an Unresolved Issue

The COG's Airport Land Use Plan proposed a policy, in accordance with the State of California "Noise Standards", which prohibits new residential development within a noise boundary of 65 CNEL as projected for the year 2000.<sup>1</sup>

Within the 65 CNEL around Stockton Metropolitan Airport, existing land usage which was determined to be aviation-incompatible includes single and multi-family dwelling units, the majority of which are located in the Taft neighborhood on the southern, unincorporated fringe of the City of Stockton. Previous General Plans of both the City and the County have indicated residential use for this area. Although this Land Use/Circulation Element indicates that residential development would be appropriate for the Taft neighborhood, the area needs to be restudied with a full analysis of the potential noise impact and means of mitigating the impact.<sup>2</sup>

Land not situated in the noise contour but still within the sphere of influence was not evaluated for noise compatibility, but only for its adherence to the height restrictions and/or its potential safety conflicts. However, it should be noted that some land uses in this area, particularly single and multi-family dwelling units, schools, the County Hospital, etc., may suffer some degree of noise impact, particularly if they are located just outside of the 65 CNEL contour where aircraft noise can still be a problem.

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<sup>1</sup>Community Noise Equivalent Levels (CNEL's) are averages of the level and duration of noise from each jet flyby, the number of flights per day and the types of aircraft, their flight paths and schedules. The 65 CNEL boundary reflects a location where sound levels will be greater than 65 dBA approximately 8 hours per day and of sufficient magnitude to cause speech and sleep interference (10,12).

<sup>2</sup>These mitigation measures range from proposing alternative land uses in the Taft area to extending the airports runway to the southeast.



## COMMODITY MOVEMENT

The transportation system for commodity movement within San Joaquin County consists of many elements: The Port of Stockton, rail transportation, truck transportation, air freight, pipelines, and electrical transmission (6). The study of commodity movement in the County is just beginning and will be further explored as part of the continual transportation planning process of the Council of Governments. Although at this time no recommendations regarding commodity movement are being made, brief comments on each mode are given below.

### WATERBORNE SHIPPING--THE PORT OF STOCKTON

Stockton has long been an inland terminal for water-borne commerce on the San Joaquin River. One-hundred years ago it served as a barge and riverboat entrance to the San Joaquin Valley and the Mother Lode. Today, the Port of Stockton continues as an inland terminal for commodity movement by truck, rail and barge between Stockton and Bay area ports, and additionally serves deep-draft vessels from around the world. It is tied to the nation by three rail lines and the interstate highway system. The Port provide 2.6 million square feet of warehousing. Because of its intermodal facilities, the Port serves as a consolidation center for export cargoes and as a distribution center for international import goods. The Port handles a broad variety of general cargoes as well as both liquid and dry bulk materials. The Port is approximately 75 nautical miles from the Golden Gate Bridge, or eight hours steaming time from the ports of San Francisco and Oakland. In 1940 the dredging of the Stockton Channel was completed to its present depth of 30 feet.

Active marine terminal facilities, both publicly and privately owned, include 12 deep-draft berths at the Port of Stockton, federally-owned wharves downstream at Rough and Ready Island, and two small wharves operated by oil companies to pump petroleum products ashore to distribution storage tanks. Adjacent to the Port are the grain loading facilities of Stockton Elevators, Inc.

The Stockton Port District, created by the California Legislature in 1932 as a special purpose agency, is governed by seven commissioners who are appointed by the City of Stockton and San Joaquin County. The District owns, operates, and maintains terminal and warehouse facilities within the 578 acre District-owned port area. District boundaries are shown in Map 32.

Two major needs have been identified at the Port: 1) the need for modern and efficient cargo handling facilities, and 2) the need to improve Stockton Deep-water Channel to facilitate its navigation by deep-draft vessels (6). The first need is to be met through the implementation of phased plans for replacement and expansion of terminal facilities, cargo-handling equipment, and warehousing and storage facilities.

The second need of the Port would be met by the execution of the John F. Baldwin Stockton Ship Channel, a project authorized by the federal River and Harbor Act of 1965. The Baldwin Ship Channel, involving the navigation system for about 100 miles between offshore San Francisco Bar and the Port of Stockton, would involve two main changes in San Joaquin County. First, the channel would be deepened to 35 feet, and second, a channel (False River Cutoff) would be cut through the northern part of Mandeville Island. Both improvements would increase the ease of navigation to the Port. This project is proceeding, with the Port's

local interest share estimated to be \$5.0 million (1975 estimate), to meet its obligations as sponsor of the project. Project completion is presently scheduled for 1980-1981. Although problems with salt water intrusion and lack of adequate dredge materials disposal sites could delay the western portion of the project, it is anticipated that the Stockton Channel portion will proceed without delay.

#### TRUCK FREIGHT

There are over 100 scheduled and contract trucking firms in the County. At this time no regional plans or inventories have been prepared. The truck freight portion of the transportation plan will begin in 1976.

#### RAIL FREIGHT

Three interstate railroads (Santa Fe, Southern Pacific, and Western Pacific) and four local railroad companies (Central California Traction Company, Stockton Belt Line, Stockton Terminal and Eastern, and Tidewater Southern) operate on 320 miles of track (Map 33).

Railroad availability has traditionally been considered an asset for industrial sites. Even if the rail is not used for freight movement, its proximity induces lower trucking rates. Those areas which have good freeway access plus rail availability and are in an urban area, are highly desirable locations for industry.

#### AIR FREIGHT

Commodities which reach their destination by air generally leave San Joaquin County by truck and are flown out of San Francisco or Oakland to eastern markets. Full loads of air freight from Stockton are obtainable seasonally, but are not possible on a year-round basis at this time. Demonstrations sponsored by the business community in San Joaquin County in 1973 and 1974 were successful in obtaining markets in the east for perishable agricultural products; however, difficulties arose in obtaining return shipments to the west.

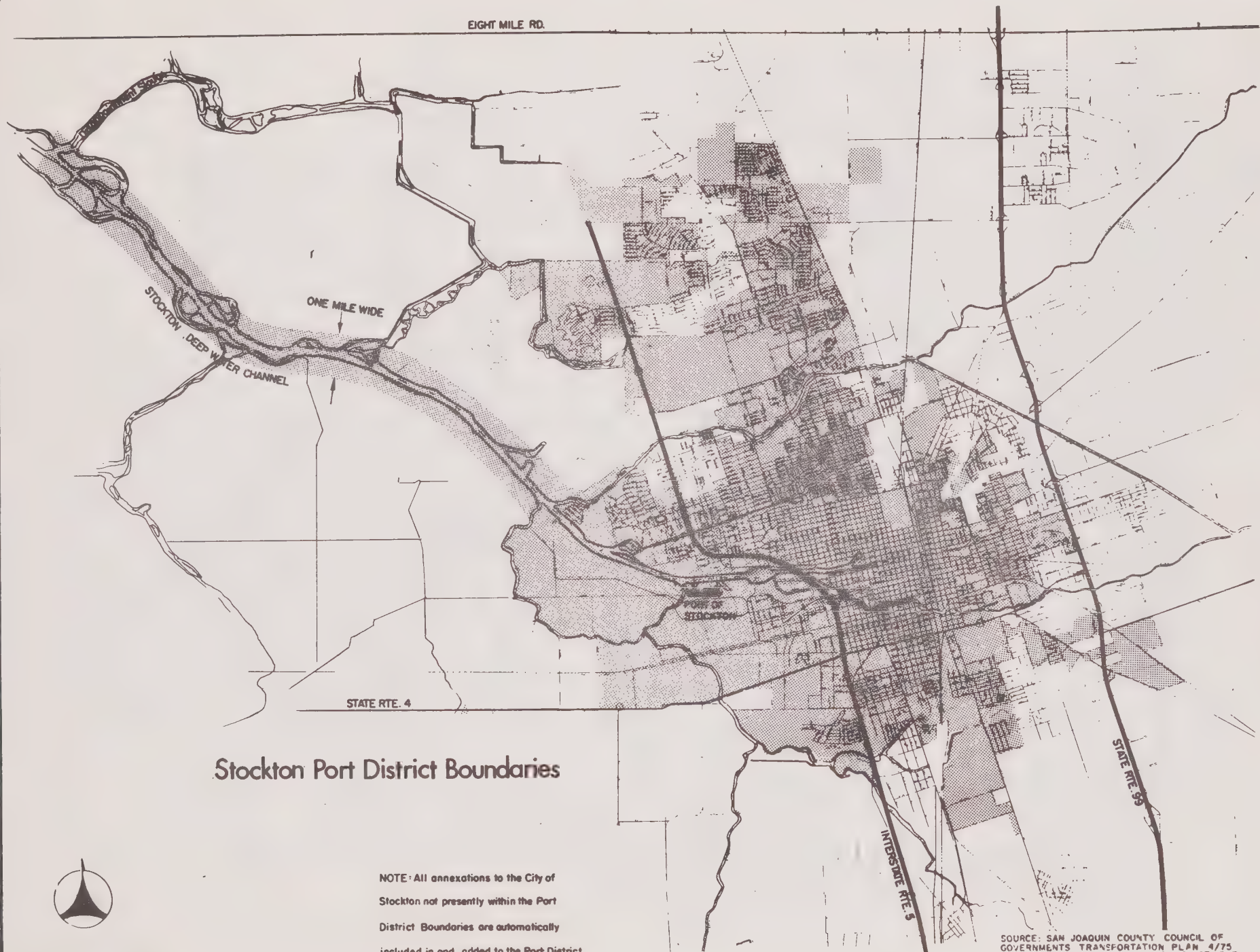
This mode of commodity movement is expected to grow rapidly throughout the United States. Further market studies need to be done on air freight possibilities in San Joaquin County. At the same time, Stockton Metropolitan Airport needs facilities to handle the eventual freight.

#### PIPELINES

Pipelines carry a variety of products ranging from petroleum and various petroleum-based products to wine and water. The Stockton area serves as an intermodal transfer point for pipeline products. The Port of Stockton and several private waterfront facilities provide connections for barges and small oil tankers to connect with petroleum pipelines.

Also located in the Stockton area are several small tank farms and truck transfer facilities for petroleum products. Pipeline routes for petroleum and natural gas are shown in Maps 34 and 35.



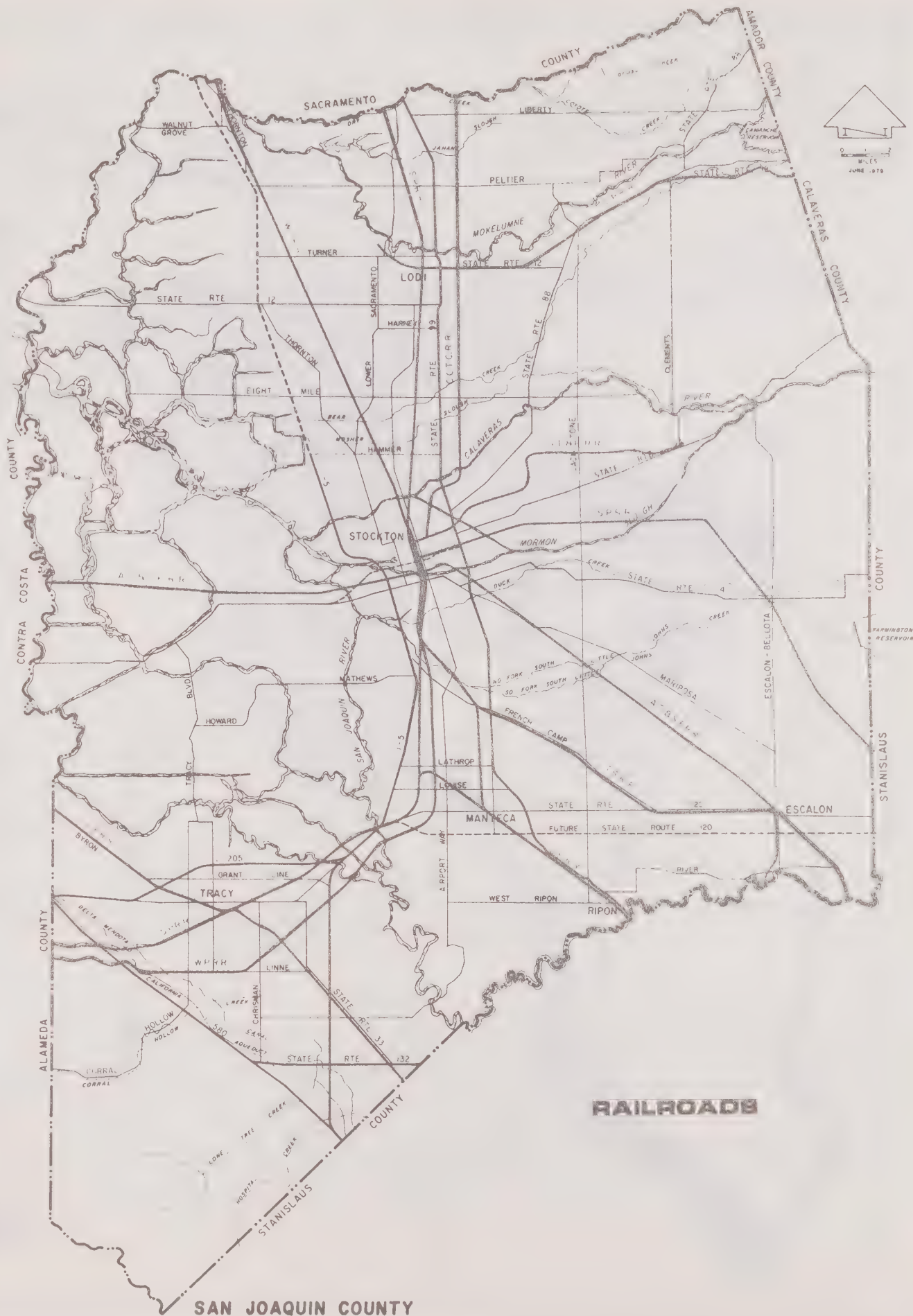


## Stockton Port District Boundaries

NOTE: All annexations to the City of Stockton not presently within the Port District Boundaries are automatically included in and added to the Port District

SOURCE: SAN JOAQUIN COUNTY COUNCIL OF GOVERNMENTS TRANSPORTATION PLAN 4/75  
SAN JOAQUIN COUNTY PLANNING DEPARTMENT





**RAILROADS**

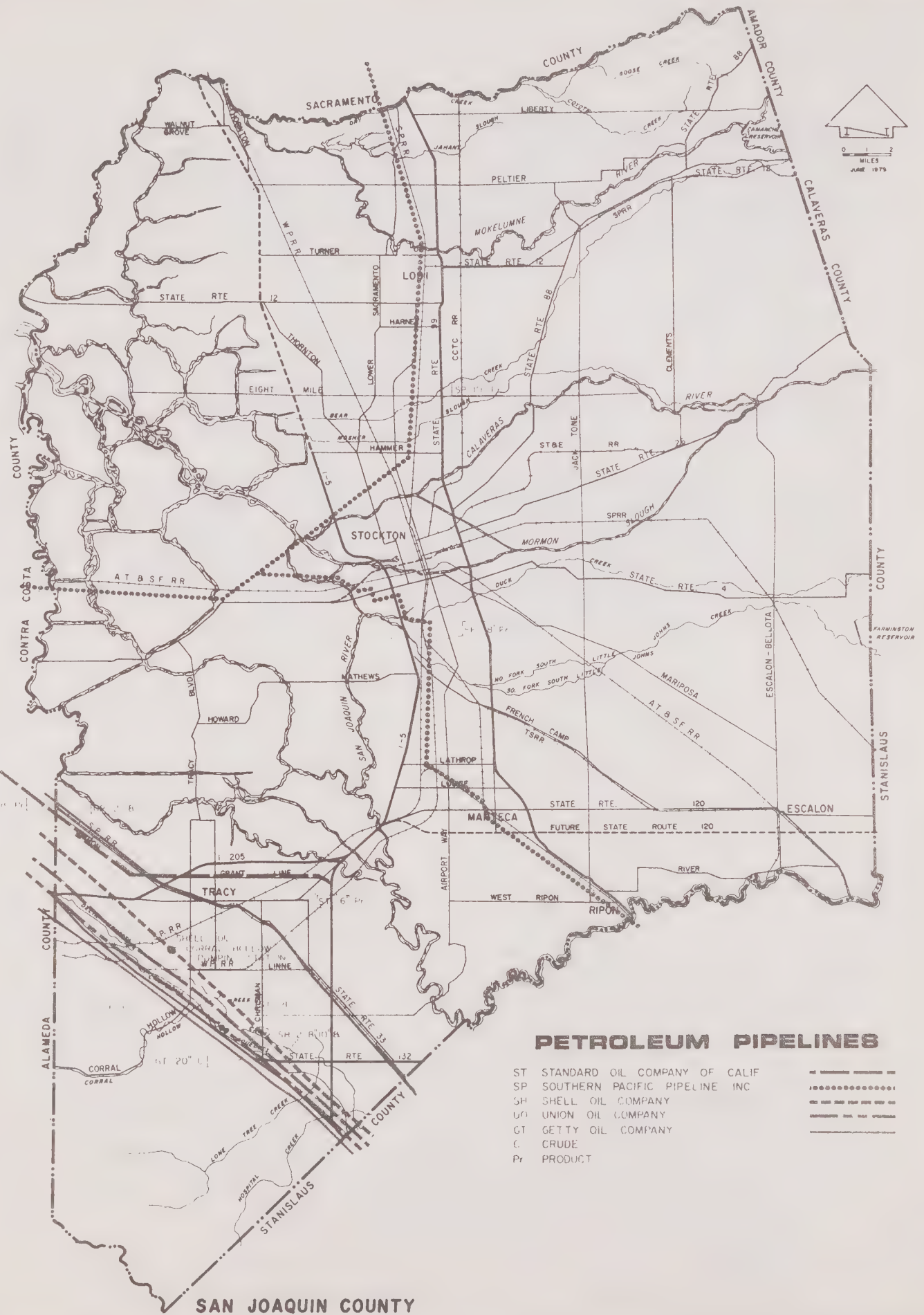
**SAN JOAQUIN COUNTY**

Although open waterways and canals account for most of the water conveyance in the County, enclosed systems are utilized to carry water from reservoirs in the Sierra, across the valley to coastal areas. The Hetch Hetchy Aqueduct, crossing San Joaquin County as a combination of underground pipelines and a tunnel, carries water to the San Francisco Area (Map 36) (14). The East Bay receives water from the East Bay Municipal Utility District's Mokelumne Aqueducts which cross San Joaquin County in some areas buried, in others exposed (15).

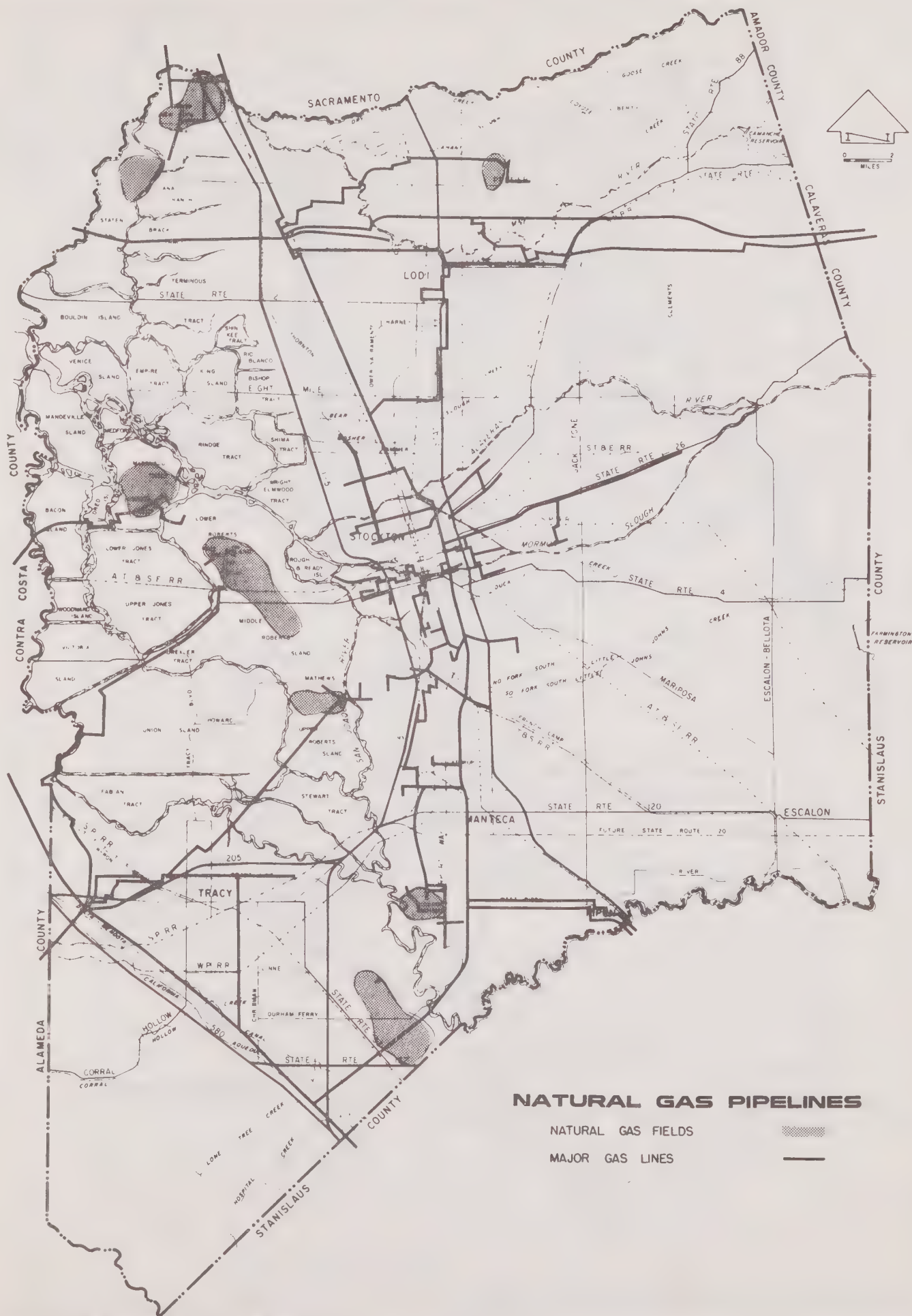
#### ELECTRIC TRANSMISSION

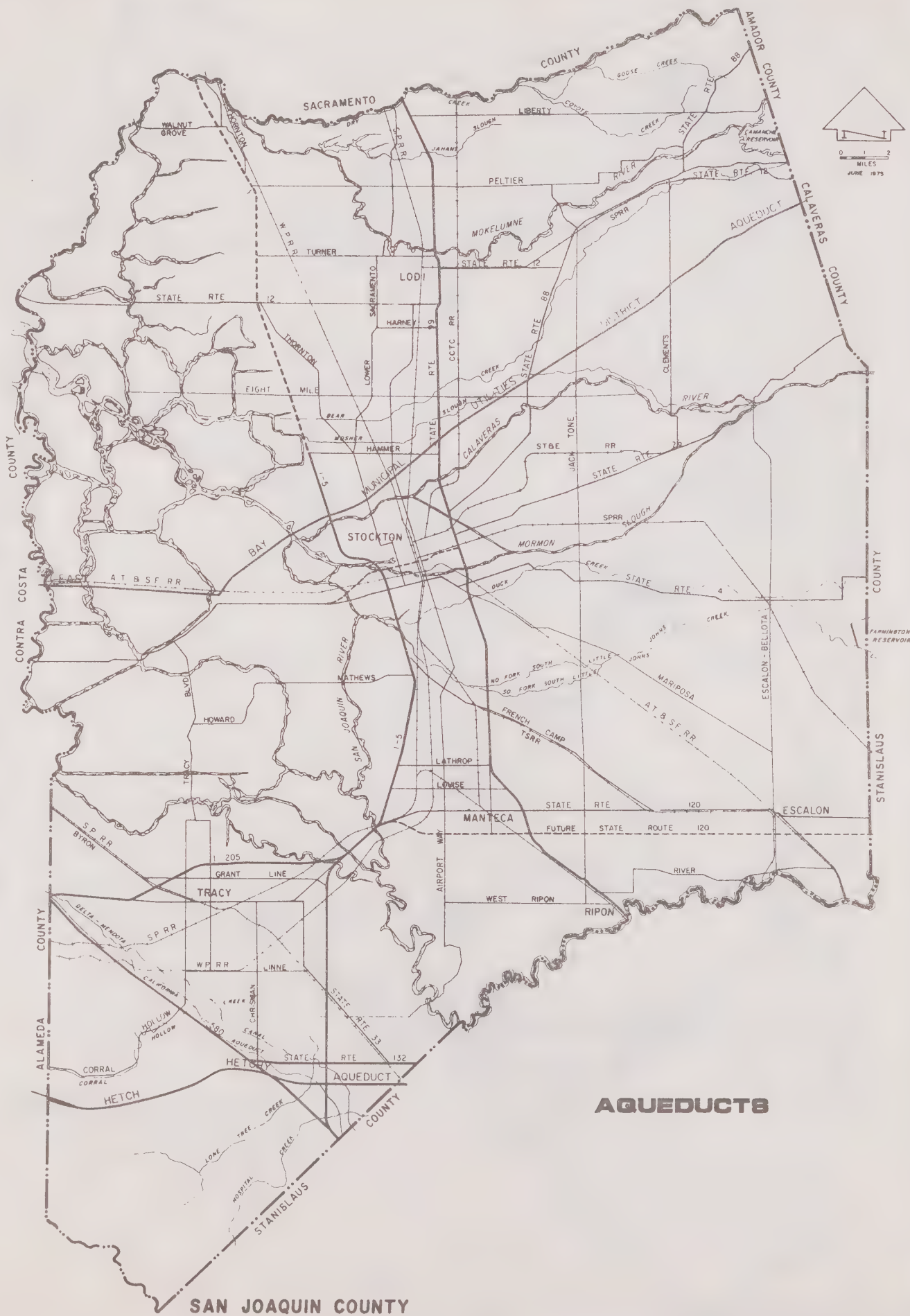
The ability to transport electrical energy great distances enables hydroelectric dams and nuclear power plants to be located in the Sierra or in the Central Valley and the energy created transported to the major population centers of Los Angeles and the San Francisco Bay Area.

There are a number of transmission lines crossing San Joaquin County, as shown in Map 37. In order to minimize the visual impact of the supporting towers, corridors containing parallel lines are encouraged. Whenever possible, in urban areas the lines should be underground. Existing corridors of towers in urban areas should be considered for multi-purpose use. In other counties these corridors have been used for recreation, such as tot lots or for trails, or for other land uses such as nurseries.

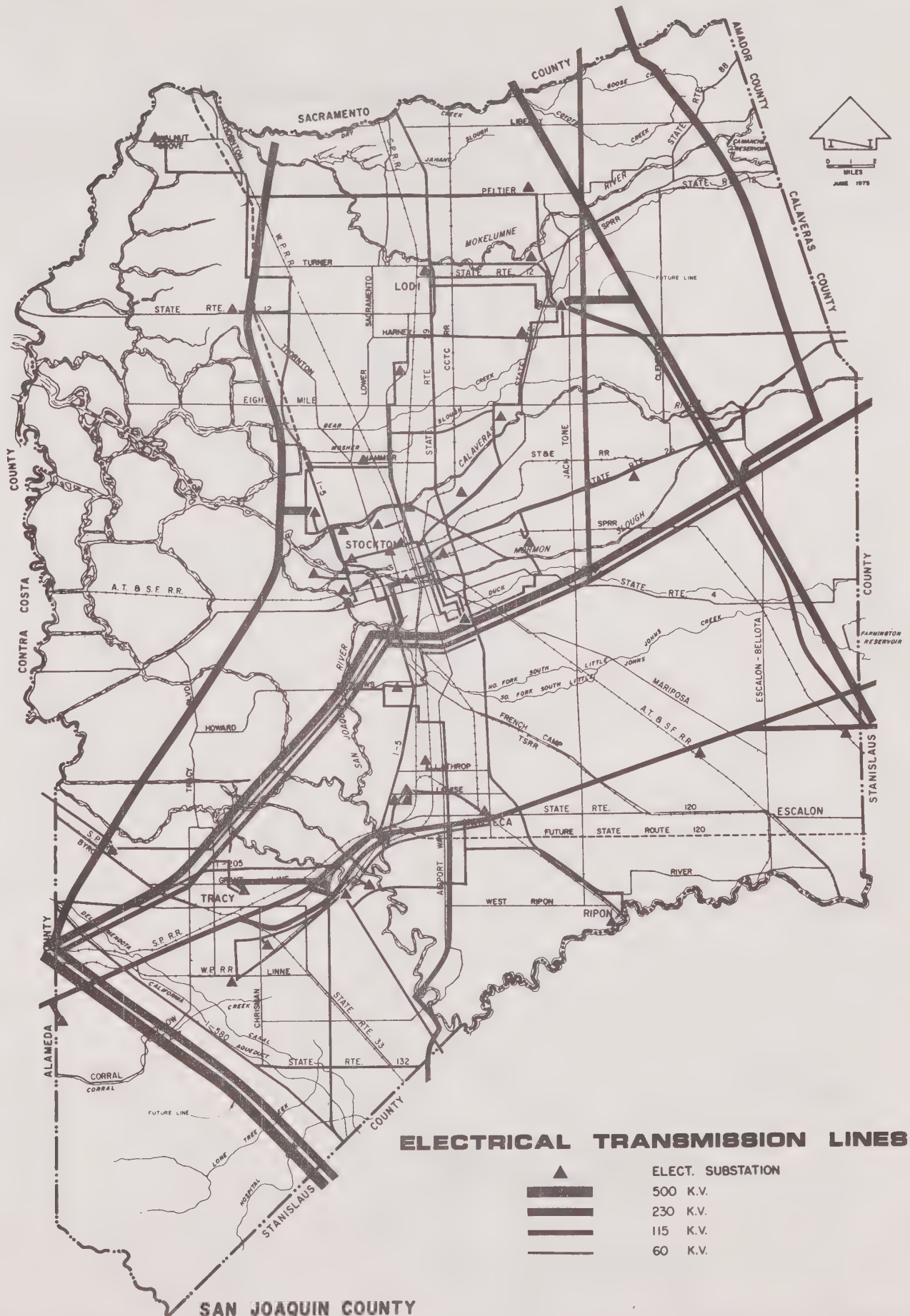














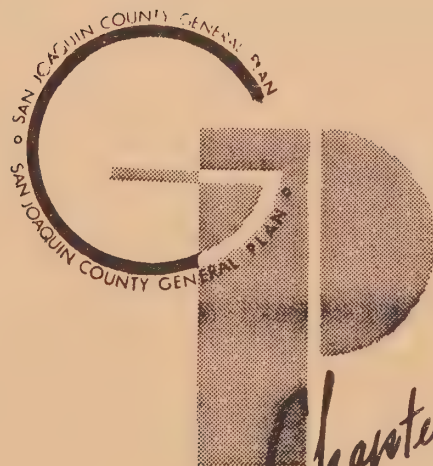
### **MULTI-MODAL TRANSPORTATION PLAN**

A map indicating features of the 1995 plan for a multi-modal transportation system for the County is presented in Map 38. The plan will be updated and revised as necessary as the co-ordinated transportation planning continues through the Council of Governments.









## *Chapter IV*

### **PUBLIC SERVICES AND UTILITIES**



## **PUBLIC SERVICES AND UTILITIES**

This chapter briefly discusses public services and utilities in San Joaquin County. Adequate community services, particularly sewage, water, drainage, police and fire protection, are necessary for the protection and convenience of the people in the County's urban areas, which cannot grow and develop to their fullest potential without all of the necessary services.

Logically, urban services provided by public and private agencies should be extended to areas according to development patterns outlined by County and City General Plan policies. However, in the past, urban services have been provided on a piece-meal basis in some areas, resulting in pockets of inadequately served areas or urban development in rural areas that cannot be property served, and a multiplicity of small, inefficient districts.

The degree of service in the various communities of the County depends upon the level of center. At the present time none of the County's rural centers are served by sanitary sewers, and many do not have community water systems. Until at least these services are available, the growth of these centers is limited.

## **SEWAGE TREATMENT AND DISPOSAL**

Treatment and disposal of sewage and liquid wastes is necessary wherever there is development. In the unincorporated areas of San Joaquin County, this is accomplished generally through the use of individual septic tanks or various forms of sewage treatment and disposal plants. Some uses, for example canneries, have their own unique methods of treatment and disposal such as land application and sprinkling. The various sewage plant systems may treat sewage from an individual business or that generated by a large city. These systems are the responsibility of cities, various special districts, or individuals (including single businesses and industries). Homeowner's associations may assume sewage collection, treatment and disposal responsibilities if so authorized at the time of formation; however, these are private organizations and not special districts.

Sewage systems (excluding septic tanks) in urban centers are described in Figure 48 and their locations shown on Maps 39-44.

## **SEPTIC TANKS**

Septic tank systems are used for disposal of domestic sewage by individual land uses (primarily residences) in the unsewered areas of the County, where the individual land use has not yet been connected to the sewer system, and where there is not a package plant system.<sup>1</sup>

Generally, an underground septic tank system, consisting basically of the tank and effluent leaching area, performs less efficiently and may have a shorter lifespan than in the past, because of the increased volume and type of wastes generated by a modern household with its garbage disposals, washing machines, dishwashers and certain cleaning agents. (These items have also had an adverse effect on large sewer systems.) The most serious problem with septic tank systems is eventual failure of the leach field. To maintain the leach field as long as possible, individuals sometimes bypass the septic system, illegally disposing of washwater into the street drainage system, or

<sup>1</sup>See discussion under PACKAGE PLANTS.



directly into a watercourse, or let it run onto the ground surface. Frequent commercial pumping of the septic tank is also done, and in some cases people will not have items such as a dishwasher, and will use a laundromat instead of having a washing machine. The implications and inconveniences are obvious. Leach fields also function less efficiently in areas of tight soils, as shown on Map 57.

In those areas where lots are small and several households are, or will be, experiencing problems, sanitary sewers should be installed. However, this is not always economically or politically feasible. The most serious problem areas are around Stockton, particularly in those areas where individual wells are used. The effect of recent regulations and sewage disposal problems on urban development are discussed in Chapter VII.

In summary, septic tank systems are not an alternative for use in urban or urbanizing areas because of the amount of land necessary and the inevitable problems. The impact of individual treatment facilities is not known at this time as there are none in the County; however, they too require effluent disposal. The California Regional Water Quality Control Board-Central Valley Region indicates that the following unsewered communities and areas may have potential health hazards due to failing septic tanks: Acampo, Banta, Clements, West Stockton (Country Club), Weatherbee Lake, and the West Lane Area.<sup>1</sup>

#### PACKAGE PLANTS

Package plants are compact sewage treatment units, generally prefabricated, and designed to treat a specific capacity of domestic sewage from individual commercial establishments, institutions, recreational facilities, residential subdivisions, mobilehome parks or industrial complexes. The "system" consists of the plant and the effluent disposal system, usually underground leach fields or surface evaporation ponds. Disposal to a watercourse, although done in the past, is no longer being permitted because minimum discharge requirements cannot be met.

There are presently 29 such systems being used in the County, with 5 proposed, to serve approved developments as shown on Maps 39-44. Most of these serve mobilehome parks.

Package plants work efficiently and produce a "clean" effluent<sup>2</sup> if they are not overloaded, are properly maintained, and protected from vandalism. The effluent disposal system is the primary drawback to package plant systems. In the past the leach fields have become clogged as a result of an inflow of solids or grease when the plant temporarily malfunctioned. This required replacement of the leach field or installation of ponds, both requiring additional land area, that was not available in all cases. In some instances the leach field could still be used but it was necessary to install polishing ponds.<sup>3</sup>

Large settling ponds are preferable because they can be scarified if used on a rotational system and problems can be visually detected. However, they are often unsightly, occupy land that could be used for other purposes (not necessarily buildings) and are a hazard.

<sup>1</sup>Letter to San Joaquin County Council of Governments from James A. Robertson of the California Regional Water Quality Control Board-Central Valley Region, with enclosed "List of Construction Projects Proposed for Clean Water Grant Applicants in San Joaquin County." 29 October, 1975.

<sup>2</sup>Compared to that effluent produced by other types of small treatment systems and some municipal plants. Many impurities and some small solids are still present.

<sup>3</sup>Effluent flows into these small ponds after treatment for additional settling prior to flowing into the leach field.

From a health standpoint package plants are preferable to septic tanks; however, they make it possible for urban density development to occur in noncontiguous pockets in the unsewered areas of the County, where other services such as public water and drainage systems, and urban police and fire protection are not available. It is also necessary in the case of subdivisions to form districts for maintenance, creating more special single purpose districts.

Also, expansion of package plant system, as an area grows, is not possible, necessitating a number of plants in one area. It may be difficult and costly to provide adequate service to those areas with many small systems, since they were not developed according to a master sewage plan. In the event that the only solution to a package plant system failure is sanitary sewers, it is costly for residents (and the remainder of the County) and may encourage growth in an area where the other services needed cannot be so readily provided.

Package plants are a positive alternative to the septic tank for isolated developments such as recreational and highway service areas. Such systems also permit an area to be developed at a planned density (although prematurely) and the sewage collection system is installed at the time of construction, making it easier to tie into a sewer system when available. However, if each collection system is not engineered according to an area-wide plan it may be difficult and costly to make modifications when sanitary sewers are available in the area.

Package plants are more thoroughly discussed in the Department's unpublished draft report on the subject (12).

#### MUNICIPAL SEWER SYSTEMS

Public sanitary sewer or municipal sewer systems consist of the collection system and treatment plant which is owned, operated and maintained by a public agency, and serves a variety of land uses and developments of one or more communities or portions of same. Plant locations and service areas are shown on Maps 39-44. Not all areas within the district boundaries may be served at the present time, and some individual uses are continuing on septic tanks. Effluent from the County's sewer plants is disposed of on the land or to water courses. Unlike package plants, municipal plants can be expanded (if funds are available) and the level of treatment improved, as in the case of the City of Stockton plant which will provide tertiary treatment. Municipal plants are also constructed on-site and can **temporarily continue operation in event of system malfunction**. Present and future federal and state regulations affecting municipal systems deal with minimum effluent quality, maintenance and maintenance personnel, among others. On a cost per connection basis, municipal plants and systems are not only more efficient than package plants but generally have a longer life expectancy and are less costly.

A sewage treatment facility is designated regional by the State in the plans for specific drainage basins. The purpose is to consolidate sewage treatment so that the number of dischargers to streamcourses is decreased and higher levels of treatment can be more economically provided while serving a larger area. Those existing treatment plants in need of improvement, that are close to a regional facility are being encouraged to tie into that system if possible, rather than seeking funds for improvement of the smaller plants. Regional facilities are encouraged to provide capacity for those areas anticipated to be within the jurisdiction of the plant owner (i.e., a city) within the planning period. Regional plants in the County are Stockton, Tracy, Manteca, and Lodi. The Regional Water Quality Control Board staff recommends Clean Water Grant funding to install or improve receiving and handling facilities for septage and recreational wastes at the Tracy, Stockton and Manteca Plants (17).

At the present time, sewage collection treatment, and disposal in San Joaquin County is patchwork at best, particularly in those areas utilizing a package plant on an interim basis. A County-wide comprehensive sewer plan is necessary if extension and integration of sewer services is to proceed in an efficient, economical and logical manner.



FIGURE 48

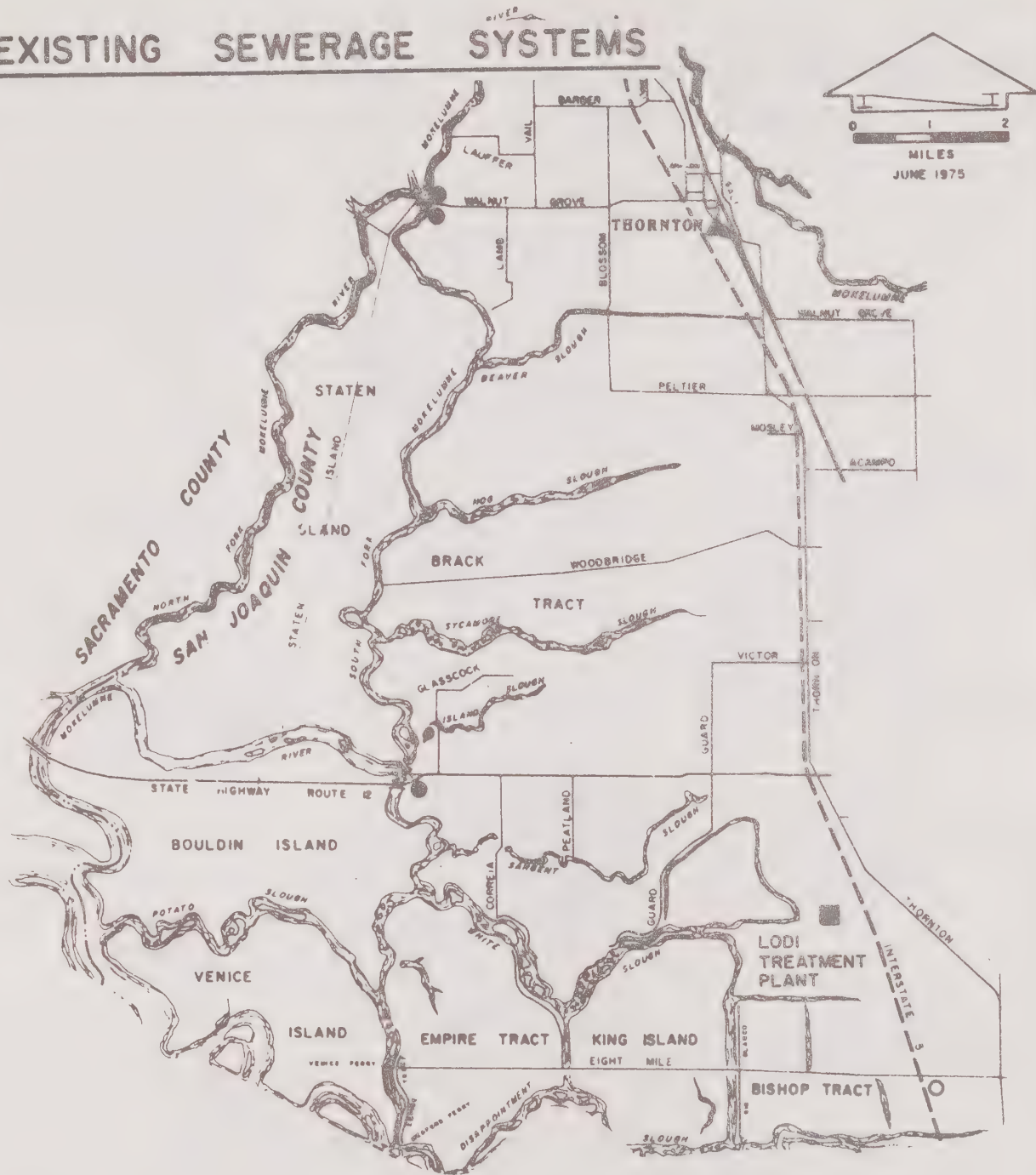
## SEWERAGE SYSTEMS IN URBAN CENTERS

CENTER	EXISTING AGENCY	EXISTING SITUATION	COMMENTS
THORNTON PLANNING AREA			
Thornton	County Housing Authority	Sewerage system and plant serving housing complex only.	Plant ponds to be moved when I-5 constructed.
	County Service Area (newly formed)	Remainder of community on septic tanks. Building ban imposed as a result of health hazards due to septic tank failures.	Construction of a system and plant to serve entire community being studied.
LODI/LOCKEFORD-CLEMENTS PLANNING AREAS			
Lodi	City of Lodi	System and plant serving the incorporated area.	Plant capacity to be expanded. It has not been decided if the City should build in enough cap city to serve Woodbridge in the future.
	Woodbridge Sanitary District	System and plant serving Woodbridge	Woodbridge intends to seek funds for updating of that plant to meet new requirements.
	Country Club Vista Maintenance District	Collection system for single subdivision in the ground; package plant ponds inadequate.	Line to be extended from Woodbridge system under the river to subdivision system.
Lockeford	Lockeford Sanitary District	Public sewer system and plant. Plant needs upgrading to meet 1977 discharge requirements.	Formation of a Community Services District is underway.
STOCKTON/LINDEN PLANNING AREAS			
Morada	Many maintenance districts; however, only 3 proposed MD's authorized to provide sewer service. They were formed for maintenance of package plant systems to serve single subdivisions.	Package plants serving mobilehome parks; remainder of area on septic tanks.	Community Services or similar District should be formed to seek a long-term solution to the community's sewage problems. City of Stockton does not anticipate extension of a line during the planning period.
Stockton	SEE Below	Most of the area served by five collection systems. Remainder of the area is on septic tanks.	Systems should be consolidated with City of Stockton and service extended to entire area. City's main plant to provide tertiary level of treatment after construction work. City's policy to extend service to unincorporated areas with all costs to be borne by requesting party.
West Stockton	City of Stockton Country Club Sanitary District	Incorporated area only. Sewerage to City system.	
	Pacific Gardens Sanitary District	Sewerage to County's north Stockton plant.	The County plant does not meet discharge requirements, and must be updated or cease operation. Pumping of sewage to City plant for final treatment proposed; however, plant improvement is under study.
North Stockton	City of Stockton	Incorporated area only.	City's north plant does not meet discharge requirements. Effluent to go to City's main plant for final treatment.
	Lincoln Village Maintenance District	Sewage to County plant.	SEE COMMENTS under Pacific Gardens Sanitary District.
	Colonial Heights Maintenance District	Sewage to County's plant.	SEE COMMENTS under Pacific Gardens Sanitary District.
East Stockton	City of Stockton	Incorporated area only.	
	Unincorporated area	Septic tanks--Burkett Acres has City sewers available.	Formation of district(s) to seek areawide solution.
South Stockton	City of Stockton	Incorporated area only.	
French Camp	Unincorporated Area	Septic tanks	Connection with City system being considered.
Linden	Linden County Water	Public sewer system and plant.	Consolidation into Community Services District has been discussed.



CENTER	EXISTING AGENCY	EXISTING SITUATION	COMMENTS
STOCKTON/LINDEN PLANNING AREAS (Cont.)			
Other			
California Youth Authority	State	Line extended from Stockton system.	Collection system and small treatment plant. Plant needs upgrading to meet 1977 discharge requirements.
Stockton Metropolitan Airport	County/City	Collection system and small treatment plant.	Line extension from City system has been proposed.
San Joaquin General Hospital	County	Collection system and small treatment plant. Wastewater used for irrigation in nearby agricultural areas.	Line extension from City system has been considered.
MANTECA/RIPON/ESCALON PLANNING AREAS			
Lathrop	Lathrop Acres Utilities Maintenance District	Collection system and small plant for single subdivision.	Treatment system may need replacement as subdivision grows.
	Other maintenance districts to be formed for single developments using package plants. County Water District authorized to provide sewer services.	Package plants serving single developments; remainder of area on septic tanks.	Provision of service by existing water district or other district, being considered. Manteca anticipates extension of line to serve the Lathrop community.
Manteca	City of Manteca	System and plant serving incorporated area.	New plant constructed with capacity for Lathrop.
	Raymus Village Maintenance District	Collection system for single subdivision in the ground; package plant leach field replaced with ponds.	A line is being extended from the Manteca system.
Ripon	Ripon Municipal Sanitary District	System and plant serving incorporated area. Plant needs upgrading to meet 1977 discharge requirements.	Plant recently expanded. Consolidation with Salida no longer being considered.
Escalon	City of Escalon	System and plant serving incorporated area.	Consolidation with Riverbank no longer being considered.
TRACY PLANNING AREA			
Tracy	City of Tracy	System and plant serving incorporated area.	New plant to be constructed
	Unincorporated area	Septic tanks	Incorporation of existing developed areas with City of Tracy or extension of lines only both being considered.

# EXISTING SEWERAGE SYSTEMS



## MUNICIPAL SANITARY SEWER SYSTEMS

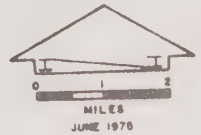
-  Service Areas
-  Sewage Treatment Plant

## SYSTEMS SERVING SPECIFIC DEVELOPMENTS


- Package Treatment Plant
- Package Treatment Plant (Proposed for Approved Developments)
- ▲ Other Treatment Facilities

THORNTON PLANNING AREA  
SAN JOAQUIN COUNTY PLANNING DEPARTMENT

# EXISTING SEWERAGE SYSTEMS



## MUNICIPAL SANITARY SEWER SYSTEMS

-  Service Areas
-  Sewage Treatment Plant

## SYSTEMS SERVING SPECIFIC DEVELOPMENTS

- Package Treatment Plant
- Package Treatment Plant (Proposed for Approved Developments)
- ▲ Other Treatment Facilities

DELTA PLANNING AREA

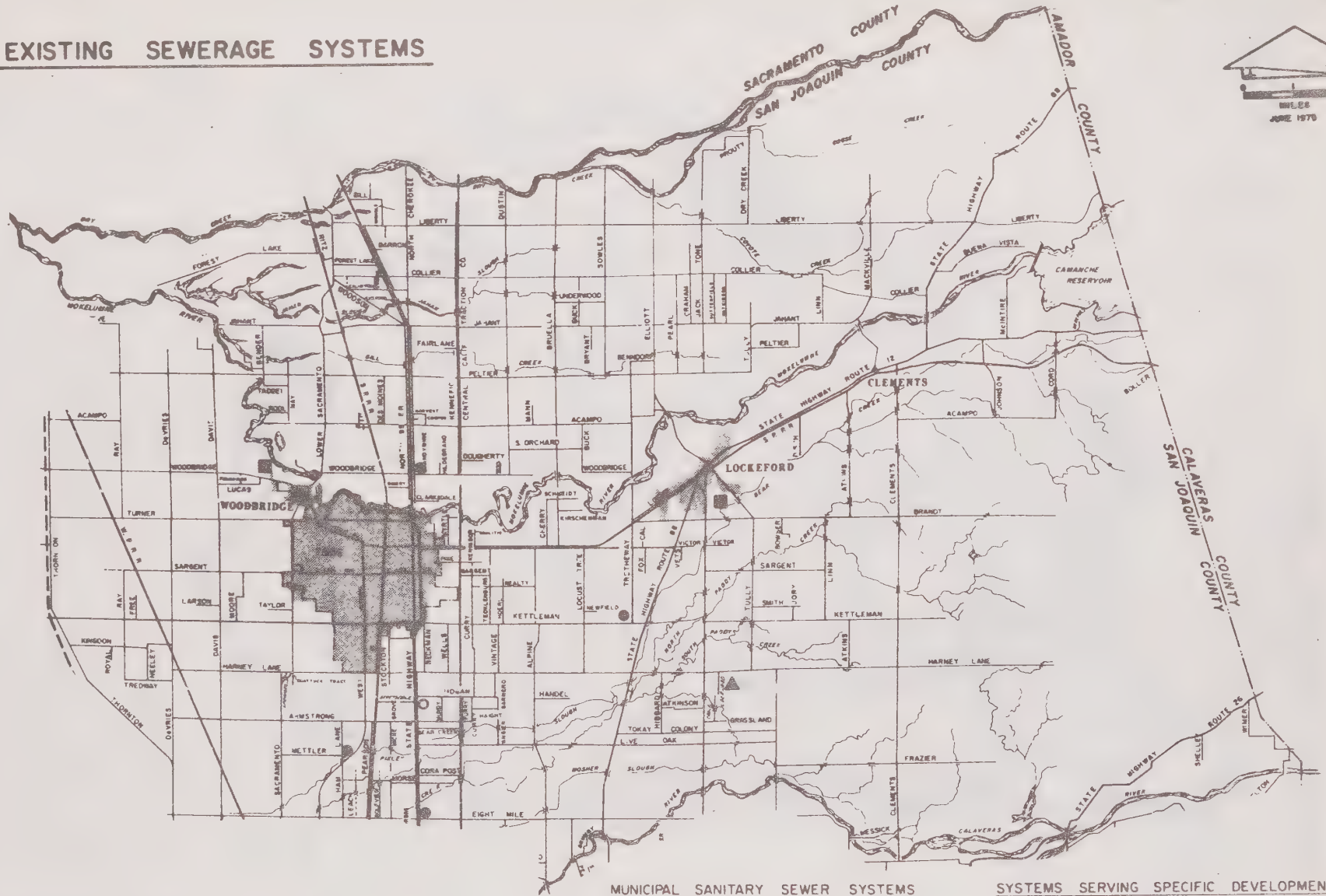
SAN JOAQUIN COUNTY PLANNING DEPARTMENT

MAP NO. 40

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# EXISTING SEWERAGE SYSTEMS



LODI / LOCKEFORD - CLEMENTS  
PLANNING AREA

## MUNICIPAL SANITARY SEWER SYSTEMS

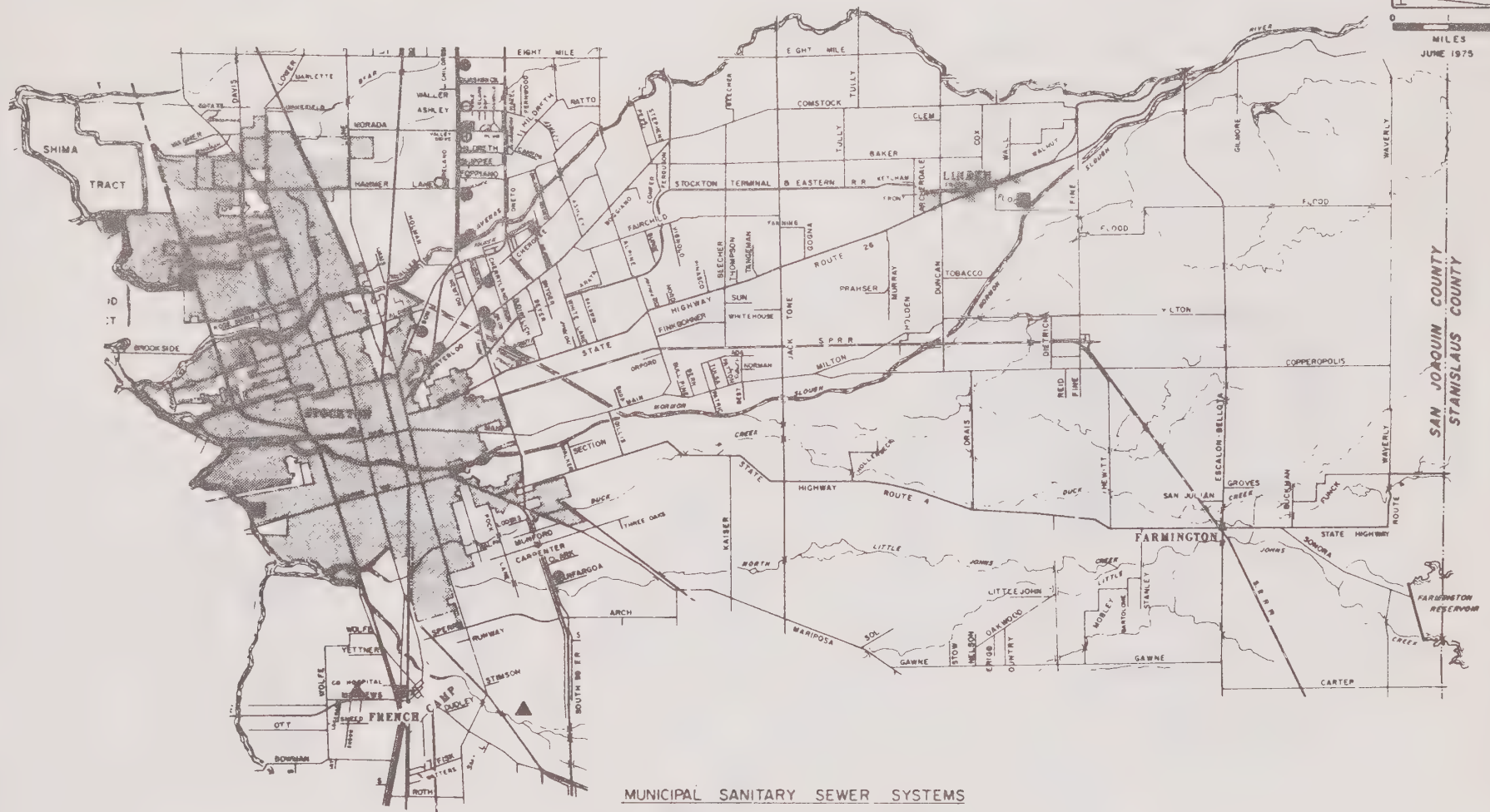
-  Service Areas
-  Sewage Treatment Plant

## SYSTEMS SERVING SPECIFIC DEVELOPMENTS

-  Package Treatment Plant
-  Package Treatment Plant  
(Proposed for Approved Developments)
-  Other Treatment Facilities

SAN JOAQUIN COUNTY PLANNING DEPARTMENT




# EXISTING SEWERAGE SYSTEMS



## MUNICIPAL SANITARY SEWER SYSTEMS

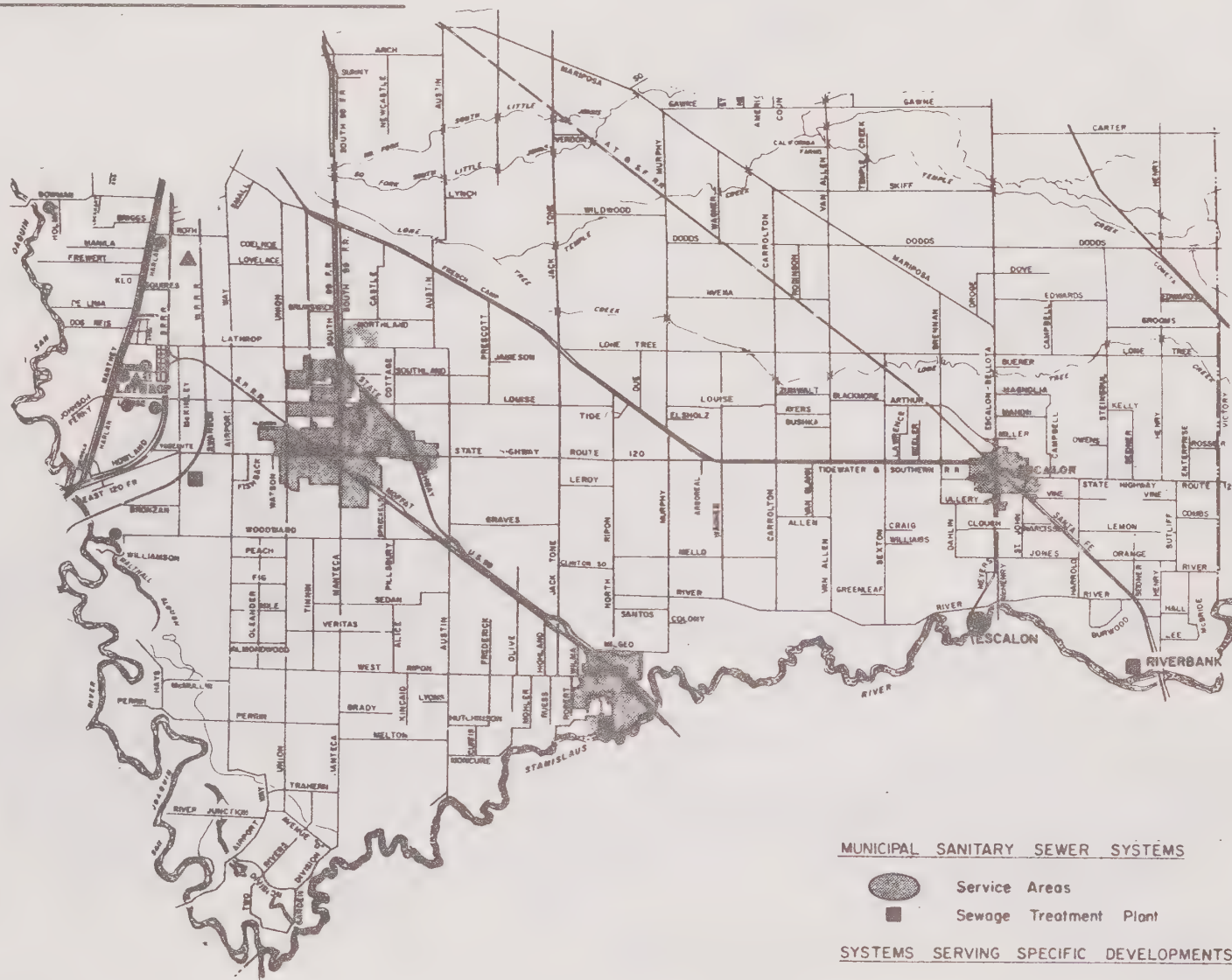
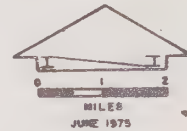
-  Service Areas
-  Sewage Treatment Plant

## SYSTEMS SERVING SPECIFIC DEVELOPMENTS

-  Package Treatment Plant
-  Package Treatment Plant (Proposed for Approved Developments)
-  Other Treatment Facilities

STOCKTON / LINDEN  
PLANNING AREA

# EXISTING SEWERAGE SYSTEMS



MANTECA / RIPON / ESCALON  
PLANNING AREA



# EXISTING SEWERAGE SYSTEMS






TRACY  
PLANNING AREA

## MUNICIPAL SANITARY SEWER SYSTEMS

-  Service Areas
-  Sewage Treatment Plant

## SYSTEMS SERVING SPECIFIC DEVELOPMENTS

-  Package Treatment Plant
-  Package Treatment Plant  
(Proposed for Approved Developments)
-  Other Treatment Facilities

SAN JOAQUIN COUNTY PLANNING DEPARTMENT

## WATER SUPPLY AND DISTRIBUTION

At the present time, ground water accounts for all of the domestic and much of the irrigation water used in the County. Ground water has many advantages, probably the greatest being its low cost when compared to the cost of imported or treated surface water. However, this supply is limited and it has become necessary to seek surface supplies if the County's urban areas are to continue growth and development. Water quality and quantity problems are briefly discussed in Chapter VII.

Presently community water systems are owned, operated and maintained by cities, water companies, private individuals and a variety of special districts. Those districts currently providing, or empowered to provide nonagricultural water services in the County are described in Figure 49. Those areas served by community water systems are shown on Maps 45-49. Agricultural water districts are shown in Chapter IV. Because of the regional nature of water provision and its complexity, consideration of consolidation of districts should be undertaken, as well as adoption of a County-wide comprehensive water plan.

Water supply and distribution are a major consideration in development. Individual wells, which are used extensively in the County at the present time, are costly and in some areas are producing poor quality water. New areas of development utilizing septic tanks and a community water system are able to develop at higher densities than those with private wells. Also, water systems are a factor in fire protection and subsequently insurance rates.

A DESCRIPTION OF DISTRICTS<sup>1</sup>

Currently Providing, or Empowered to Provide Water Services

Type of District	Area <sup>2</sup>	Governing Body	Formation <sup>3</sup>	Authorized Services
Maintenance	Any land, within either a County or City, served by the improvements.	County or City	County or City Order	As specified in the County or City resolution forming or modifying the district; implied service is to maintain public facilities installed by the developer or assessment proceedings which would normally be water, sewer, storm drain, and lighting systems.
County Service Area	Any land in one county. A city must approve inclusion of any of its area.	County	County resolution or petition of 10% of voters, hearing, county order; majority election if 10% protest.	As specified in formation resolution or election or subsequent modification, from among the following: police protection; parks & recreation; libraries; miscellaneous extended services such as water, sewerage and garbage collection.
Sewer and Maintenance	Any land within a city.	City	City resolution by 2/3 of council hearing, city order.	Sewerage; storm drains and flood control; water supply.
California Water	Land capable of using water from a common source and system.	5,7,9 or 11 elected owners	Petition by owners of a majority of land; hearing & county approval, majority election.	Water supply; sewerage; conserve storm water; generate (at water projects) whole-sale power; recreational facilities (presumably at water projects); fire protection.
Water Conservation (Woodbridge)	Land in, or deriving water from a stream watershed.	3,5, or 7 directors elected at large or by ward.	No longer authorized; was petition by 50 owners or more than 1/2 the owners, hearing, majority election	Acquire and conserve water and water rights; protect land from floods; distribute water, including underground replenishment (may not acquire water from underground).
Water Conservation (other)	Parts of a stream watershed or adjacent land not in an irrigation district.	3,5, or 7 directors elected at large	Petition by 500 or 20% of the residents, hearing, majority election	Conserve, store and distribute water; acquire water and water rights, including from underground; reclaim sewage and storm water; recreational facilities.
County Waterworks	Any contiguous land not in an irrigation district.	Board of Supervisors or five directors appointed by Board.	Petition by 25% of residents, hearing (no boundary reduction), majority election unless all owners signed petition.	Water supply; reclaim sewerage and operate related sewerage systems (if related to water conservation and reuse).
Community Services	Any unincorporated land.	3 or 5 elected directors or Board of Supervisors.	Petition by 10% of voters, hearing, and finding district is economically feasible, majority election (unless all voters sign petition).	Water supply; sanitation and storm drainage; garbage service; recreation; fire protection; street lighting; mosquito abatement; police protection; libraries; streets.
Municipal Utility	All of any city, county water district, county sanitation district, together with outside territory; or all of two or more of the above agencies, with or without outside territory.	5 directors, elected at large from wards.	Resolution of legislative bodies of 1/2 of the agencies or petition by 10% of the voters in approving agencies must be 2/3 of voters in district as first proposed.	Water supply; power and telephone; transportation; sanitation and garbage service; recreation at reservoirs.
Public Utility	Any unincorporated land.	3 or 5 elected directors.	Petition by 14% of voters at last gubernatorial election, hearing (no boundary reduction) and finding district is feasible, majority election.	Water supply; power; telephone; lighting; transportation; sanitation and garbage service; fire protection; parks and recreation; roads and drainage.

<sup>1</sup>Source: McDonald and Smart, Inc. Survey of Special Districts of San Joaquin County. (2)<sup>2</sup>May be in two or more counties and need not be contiguous, unless noted.<sup>3</sup>Petition is to Board of Supervisors. After LAFCO approval, hearing is by Board of Supervisors, which may reduce boundaries unless noted, though boundary change would have to go back to LAFCO. Some laws provide for "majority protest" which was assumed unconstitutional by original source.



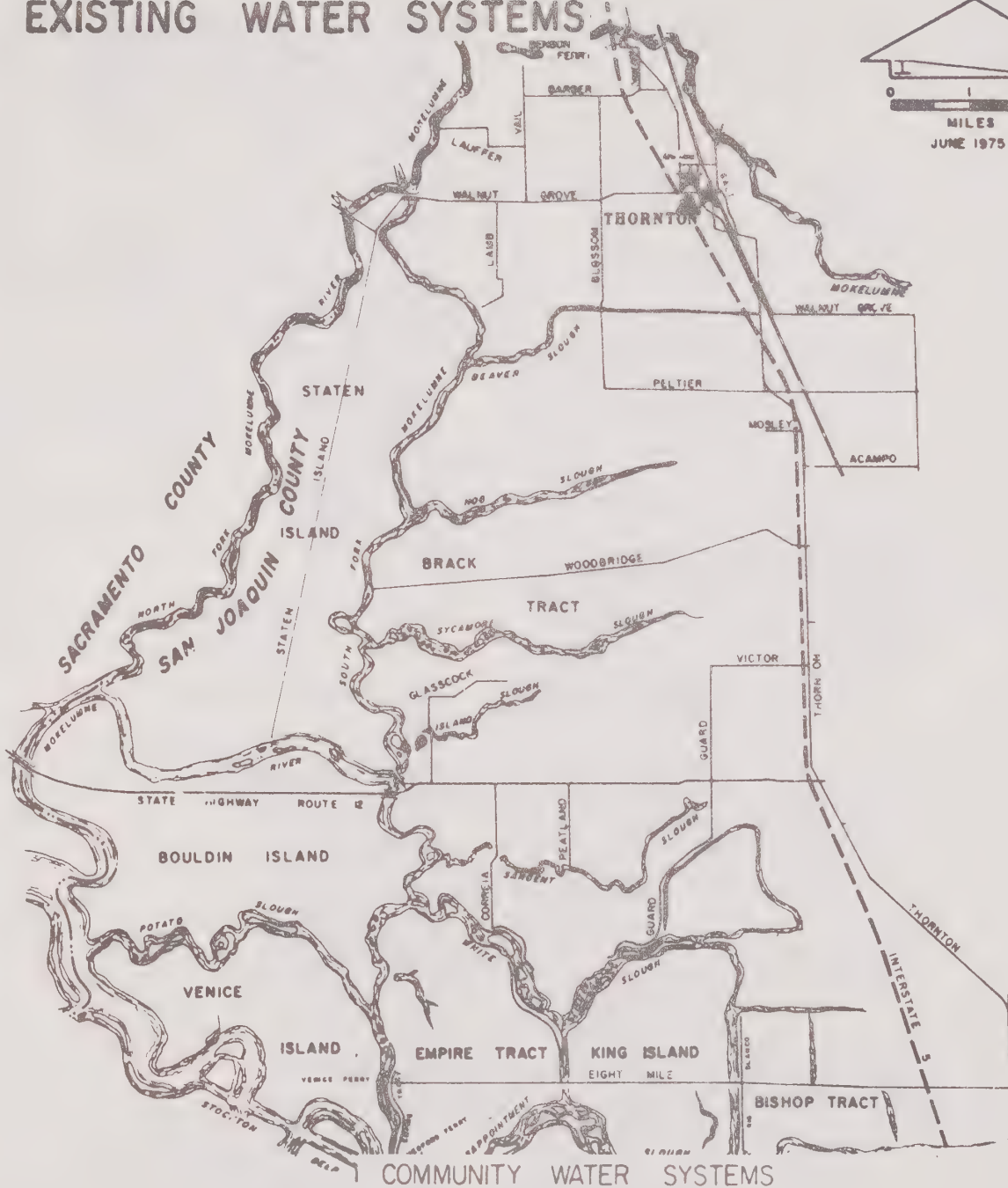
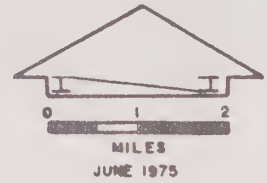
FIGURE 50

WATER SYSTEMS IN SAN JOAQUIN COUNTY<sup>1</sup>

CENTER	EXISTING AGENCY	COMMENTS
THORNTON PLANNING AREA		
Thornton	2 Private companies	These systems are not in good condition and serves a limited number of connections.
	Housing Authority	This system serves only the Public Housing complex
		The County Service Area is not presently empowered to provide water.
LODI/LOCKEFORD-CLEMENTS PLANNING AREAS		
Lodi	City of Lodi	System serves the incorporated area
Woodbridge	Private system	Currently serves one development whose residents are seeking to make the system public.
	Mokelumne Acres Maintenance District	Serves a single subdivision
		A recent study indicated that many of the individual wells in Woodbridge are producing unsafe water. Repair of these wells or development of a community system has been discussed. Presently there is no district empowered to provide water. Incorporation of Woodbridge with Lodi is expected during the planning period.
Henderson Village		
	Sunnyside Maintenance District	System serves only one subdivision, remainder of community on individual wells. Development of a system for the entire community is being discussed.
Acampo	Maintenance District	Water supplied by Barengo Winery well
Victor	San Joaquin County Waterworks District #2	Victor County Service Area is being formed and could take on functions of water supply. The District is not being dissolved.
Lockeford	San Joaquin County Waterworks District #1	A Community Services District is in the process of formation and the Waterworks District should be dissolved.
Clements	Private system	This system is not in good condition and serves a limited number of connections.
STOCKTON/LINDEN PLANNING AREA		
Stockton	California Water Service Co. City of Stockton, Colonial Heights Maintenance District, Lincoln Village Maintenance District	Consolidation of districts is being discussed. Presently users within the maintenance districts are unmetered.
	Stockton-East Water District	The District is constructing a water treatment facility and will provide surface water supplies from New Hogan Reservoir to Stockton districts and agencies. Ground water use fees and surface water charges may be levied within the District area.

CENTER	EXISTING AGENCY	COMMENTS
STOCKTON/LINDEN PLANNING AREAS (cont'd)		
Morada	7 maintenance districts	Each district serves a single subdivision. Existing maintenance districts should be consolidated into a Community Services District which is empowered to provide water to the entire community. Morada is in the Stockton-East District.
French Camp		Recent studies indicate water quality in a number of area wells is very low. The extension of water lines to the area from Stockton is being studied. French Camp is in the Stockton-East District.
Linden	Private company	The Linden Water District is negotiating purchase of the water company. Linden is in the Stockton-East District.
Farmington	Private system	This system serves a limited number of connections.
MANTECA/RIPON/ESCALON PLANNING AREA		
Manteca	City of Manteca	Serves incorporated area only.
	Raymus Village Maintenance District	Serves Raymus Village Subdivision only.
Lathrop	Lathrop County Water District	Presently serves only portion of area within the district.
Ripon	City of Ripon	Presently serves incorporated area only.
Escalon	City of Escalon	Serves incorporated area outside of Water and Light Company boundaries.
	Escalon Water and Light Company	Serves a small central area of the city.
TRACY PLANNING AREA		
Tracy	City of Tracy	Serves incorporated area only. Tracy has negotiated for surface supplies from the Delta-Mendota Canal.
	3 maintenance districts	Districts provide water to individual developments in the unincorporated area.
<sup>1</sup> Presently all water for nonagricultural uses comes from underground supplies. The possibilities of surface supplies are noted in the above. Uses within those areas not served by a community system have individual well.		

# EXISTING WATER SYSTEMS



## COMMUNITY WATER SYSTEMS



Service Areas



Treatment Plant (under construction)



Privately Owned System (service area unknown)

## SYSTEMS SERVING SPECIFIC DEVELOPMENT



Maintenance Districts



Other

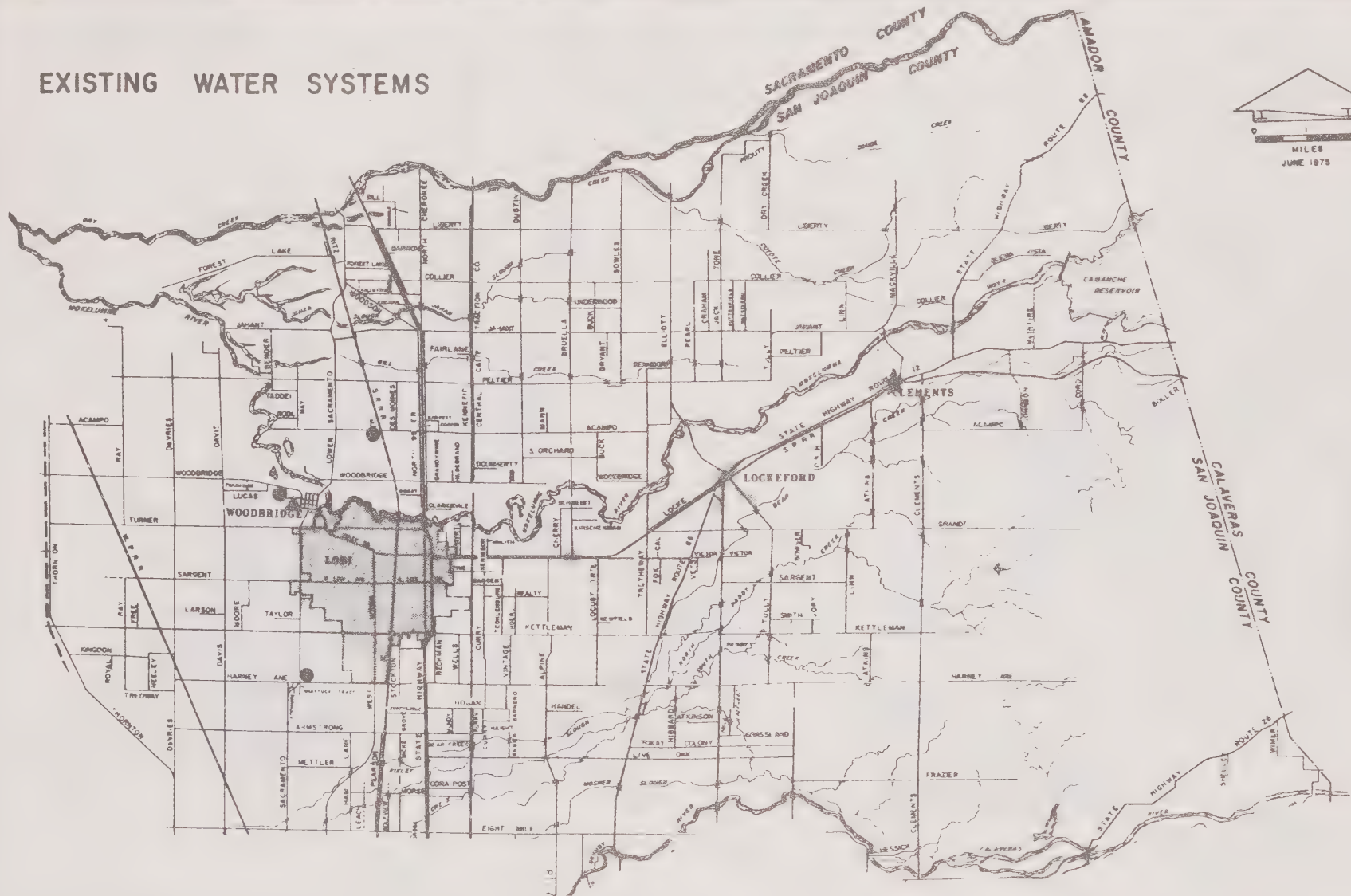
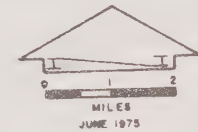
THORNTON  
PLANNING AREA

SAN JOAQUIN COUNTY PLANNING DEPARTMENT

MAP NO. 45



# EXISTING WATER SYSTEMS



LODI / LOCKEFORD - CLEMENTS  
PLANNING AREA

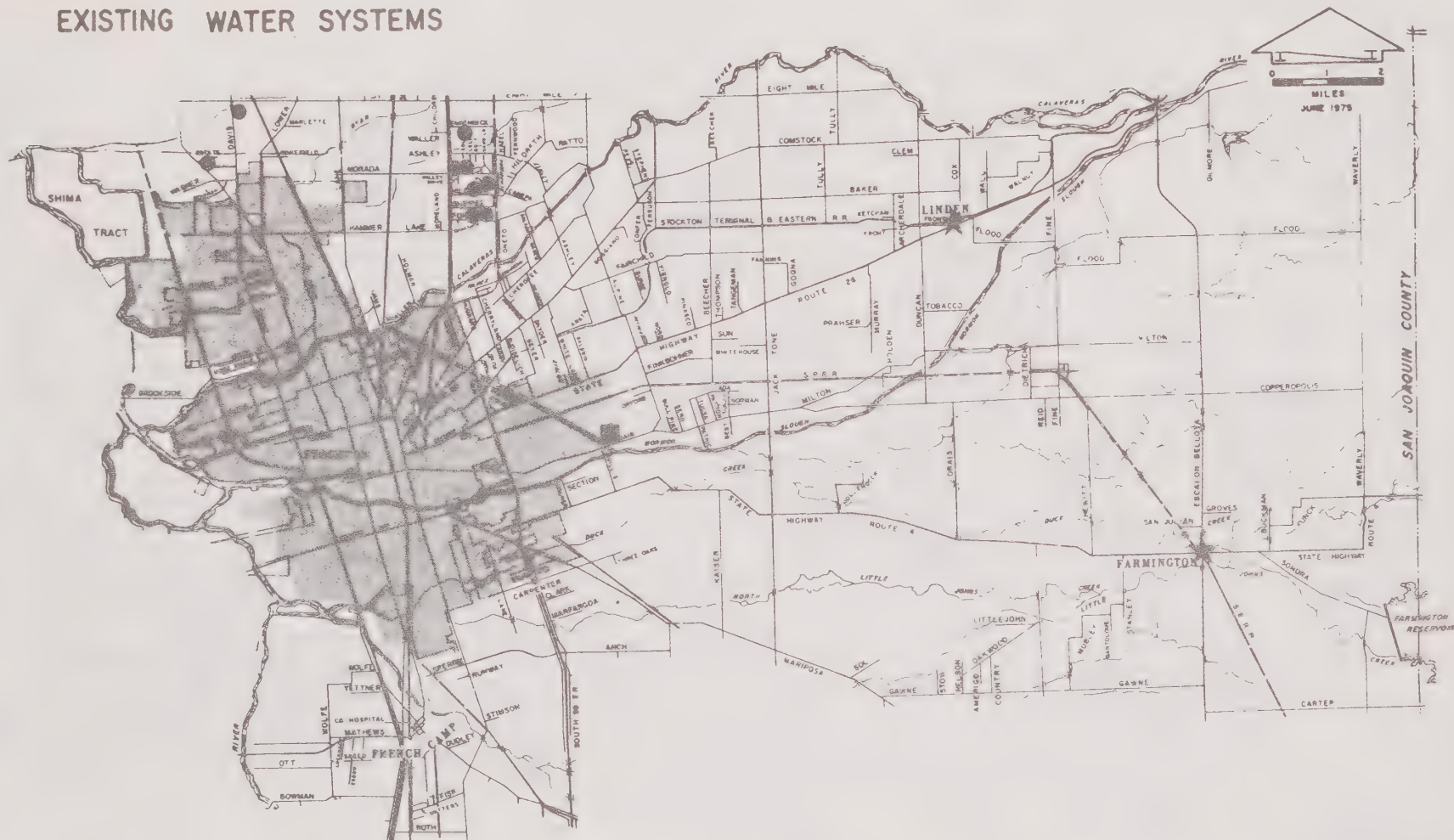
## COMMUNITY WATER SYSTEMS

- Service Areas
- Treatment Plant (under construction)
- Privately Owned System (service area unknown)

## SYSTEMS SERVING SPECIFIC DEVELOPMENT

- Maintenance Districts
- Other

# EXISTING WATER SYSTEMS



STOCKTON / LINDEN  
PLANNING AREA

## COMMUNITY WATER SYSTEMS

- Service Areas
- Treatment Plant (under construction)
- Privately Owned System (service area unknown)

## SYSTEMS SERVING SPECIFIC DEVELOPMENT

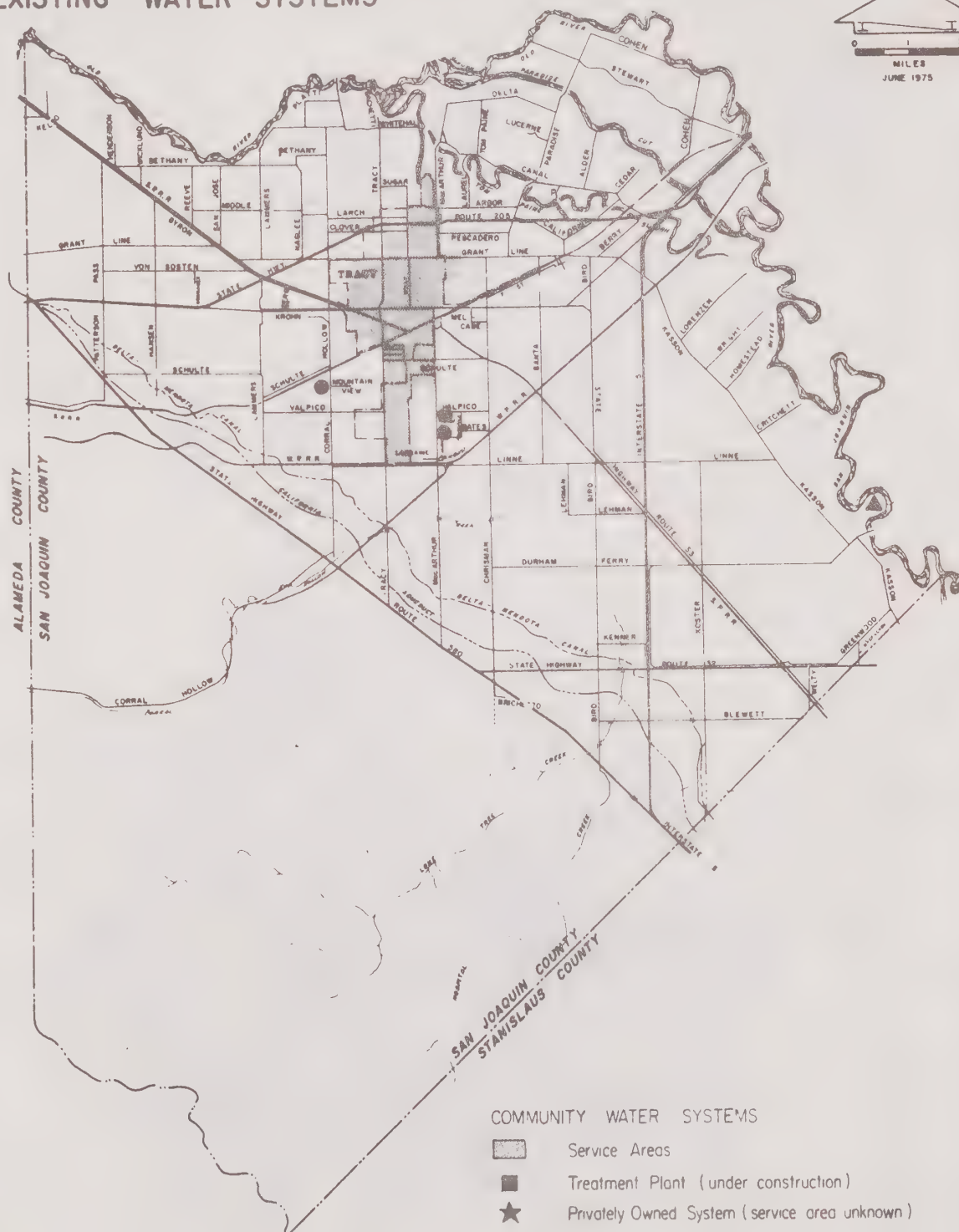
- Maintenance Districts
- Other

# EXISTING WATER SYSTEMS






MANTECA / RIPON / ESCALON  
PLANNING AREA





## COMMUNITY WATER SYSTEMS

-  Service Areas  
 Treatment Plant (under construction)  
 Privately Owned System (service area unknown)

## SYSTEMS SERVING SPECIFIC DEVELOPMENT

- Maintenance Districts
- ▲ Other

## **DRAINAGE**

Drainage, as discussed in this section, is the removal of water from land surfaces by downward percolation or downslope surface movement (runoff). When there is enough water to produce standing pools over a widespread area, the area is considered flooded, a situation which can be avoided in many cases if there is adequate surface drainage.

Land use is important in determining runoff because the natural characteristics of the ground surface are altered. Those land uses with the greatest degree of ground coverage generally have the greatest amount of runoff.

Adequate drainage is a problem in the agricultural areas of the County; however, it is a serious problem in the urbanizing and individual areas of the County where there is a high percentage of ground coverage, and minimal, if any, drainage systems.

At the present time, outside of incorporated cities, there is no integrated system and drainage is provided on a piece-meal basis by individual property owners, the cities and special districts (76 are empowered to provide this service). In some areas agricultural districts will permit drainage to their systems from urban development.

The need for integrated drainage systems has been recognized, and in 1973 the County adopted a Drainage Fee Schedule which is based in part upon the Master Drainage Plan (6). The purpose of the Plan was to develop feasible and economical methods of draining residential, commercial and industrial developments that are anticipated to be constructed by the year 1990. The Plan is based on the Land Use/Circulation Element of the General Plan to 1990. Adoption of the revised element will necessitate a revision of the Drainage Plan. Presently fees are collected for future development of a total system. Presently, each developer must also provide interim drainage of the project parcel. Although drainage systems are usually built from the outfall back, if development occurs in a contiguous manner, adjacent to areas already served, fees and interim systems can often be avoided. Older, previously developed areas will be the hardest and most costly to drain, and are usually most in need of a system. Funds for these areas must come from other sources.

Collection of fees at the time of development is a means of implementing the drainage plan (which implements the General Plan), and is a means of providing a financial base for construction of a total system in the future. Drainage fees are collected for those parcels shown for urban development on the General Plan, as it is the developed lands that create the drainage problems and people in those areas will be the direct beneficiary of a system. However, in those areas where urban development is not planned, a drainage system is not necessary, therefore, fees are not collected. Because there are no fees, pressure for scattered urban development has been created in agricultural areas.

Drainage from rural residential parcels should be handled on the individual parcels, as a system serving such large parcels would be very costly and lot sizes should be large enough to handle most of the runoff created by the uses on the parcel. Open space uses are encouraged in those areas where drainage is naturally very poor.

## **GAS, ELECTRIC, TELEPHONE AND CABLE TELEVISION SERVICES**

Natural gas is provided to all of the cities and the serviced unincorporated areas by the Pacific Gas and Electric Company. Those homes and businesses with on-site gas tanks are served by local companies. P.G.&E. also provides electricity to the entire County (the City of Lodi distributes to city residents). . . Electrical service can be made available almost anywhere in the County; however, costs are not uniform. Telephone service is provided by three companies, whose service areas are shown on Map 50. Service is available almost anywhere in the County; however, like other utilities, costs are not uniform.

Major gas and electricity transmission corridors are shown on Maps 35 and 37.

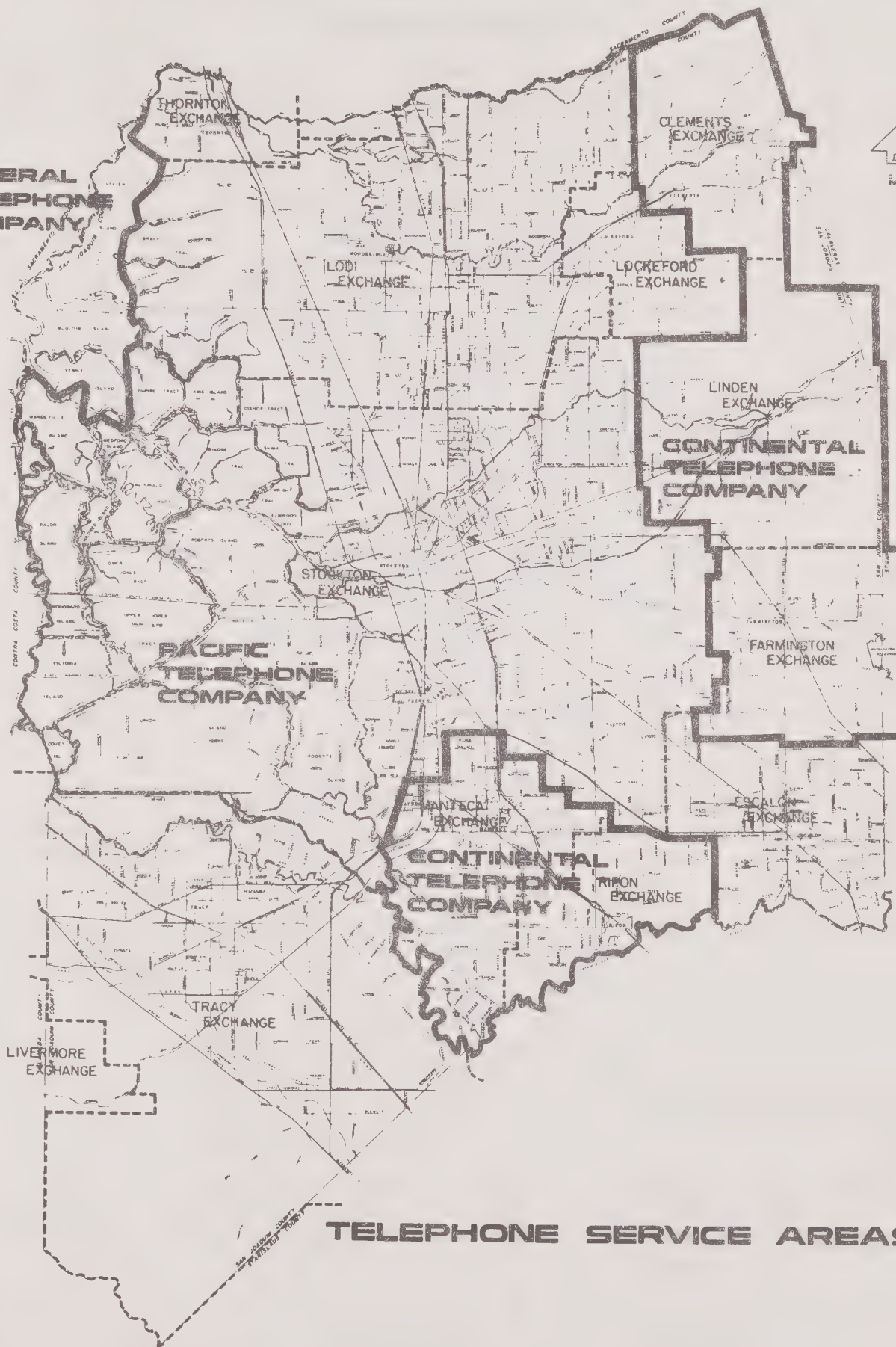
Distance from transmission facilities is a major factor in costs. The ability to provide service is also affected by the number of connections in an area, and the existing and planned capacity of facilities serving that area. Unexpected building in rural areas could put a strain on utilities, affecting a large area, in addition to individual customers.

Future utilities planning is based upon the General Plan and subsequent zoning, in conjunction with the companies' estimates and forecasts. It is expected that adequate gas, electric and telephone services can be provided to meet the needs of the projected land uses during the planning period.

Cable television is available in some areas of Stockton and Lodi. Outside of these areas, antennas are necessary for clear reception.



**GENERAL  
TELEPHONE  
COMPANY**



**TELEPHONE SERVICE AREAS**

**SAN JOAQUIN COUNTY**

SAN JOAQUIN COUNTY PLANNING DEPARTMENT

## SOLID WASTE MANAGEMENT

A 25-year Solid Waste Management Plan for the County is currently being drafted to meet County needs and State requirements. The Plan is based on the original 1973 draft done by the Stockton Chamber of Commerce and the San Joaquin County Medical Society, and the 1967 Stone Report (7) (15).

The County is divided into three service areas for solid waste management planning and administrative purposes, each with a County disposal site (Map 51). Recognized disposal sites are summarized in Figure 51. The Harney Lane site, serving Area 1 is currently being replaced, and the County sites for Areas 2 and 3 will probably require replacement during the planning period<sup>1</sup> (Map 51) (1995 for the General Plan and 2000 for the Solid Waste Management Plan). A private site in Area 2 is being developed; however, its use is restricted at the present time, the location is questionable, and it too may not be adequate to accommodate the projected waste volumes over the total planning period. A recycling project has been proposed as part of the development plan of this private site. All of the County's sites are Class II (7) sanitary land fill operations. There are a number of unauthorized waste sites in the County at the present time, as well as sites where construction materials, etc., are disposed.

Presently, about 20% of the cannery wastes are applied to the land, while the remainder is disposed of at the land fill sites.

Dead animals are disposed of at the land fill sites and there is a pit for this purpose at the Harney Lane site. Also, small animals are cremated at the Stockton facility and larger ones may be buried by the farmer or taken to rendering plants in Turlock or Tracy. Animals wastes are disposed of by reapplication to the land and in some cases are sold for commercial fertilizers. Disposal of this type of waste may become a greater problem in the future.

All solid waste collection (excluding canneries or other large waste generators) is by franchised collectors. There are nine contractor collector service areas in the unincorporated area (Map 52) and each of the six cities also has franchised collectors. The collection area boundaries do not coincide with the Service Area boundaries. Presently there are no mandatory collection areas.

Dumping sites are controlled by local ordinances, administered locally by the Administrator's office, Planning Department, Department of Public Works and the Local Health District. The County now uses the sanitary land fill method of disposal to avoid problems of disease carrying rats and insects, air and water pollution, unpleasant odors, safety hazards and eyesores. These problems may occur at illegal dumping sites. Landfills are not without problems: there must be adequate soil for coverage, wind blows paper, etc., before it is compacted, and pollution of water sources could be a problem as water drains through the decaying matter. Methane gas fires have occurred at the Peters dump site, which has been covered over but was not a sanitary landfill.

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<sup>1</sup>The useful life of a site may be lengthened with technological and economic advances in solid waste management, such as productive recycling, composting, etc. Estimates are conservative, based on existing and anticipated conditions.

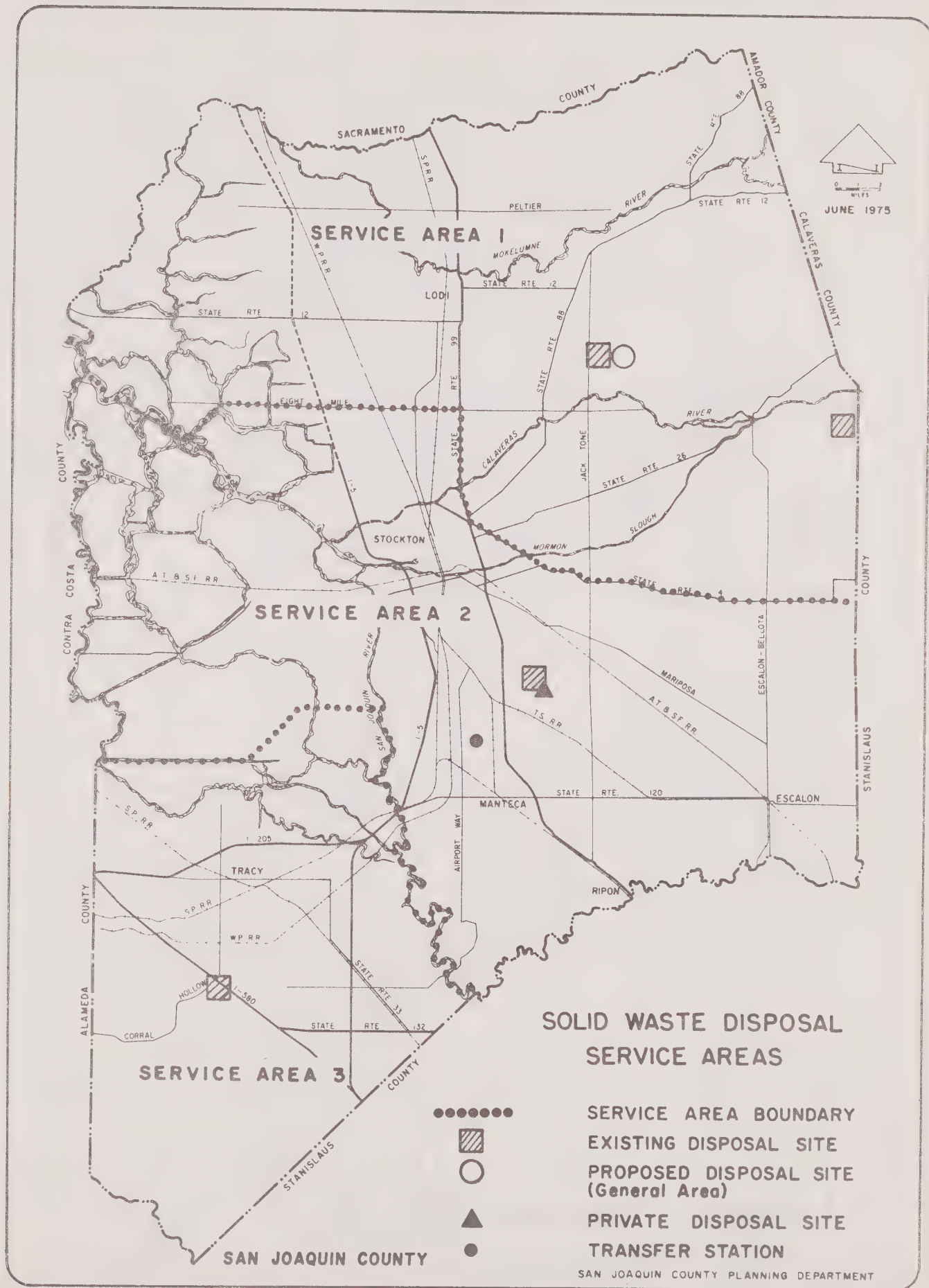
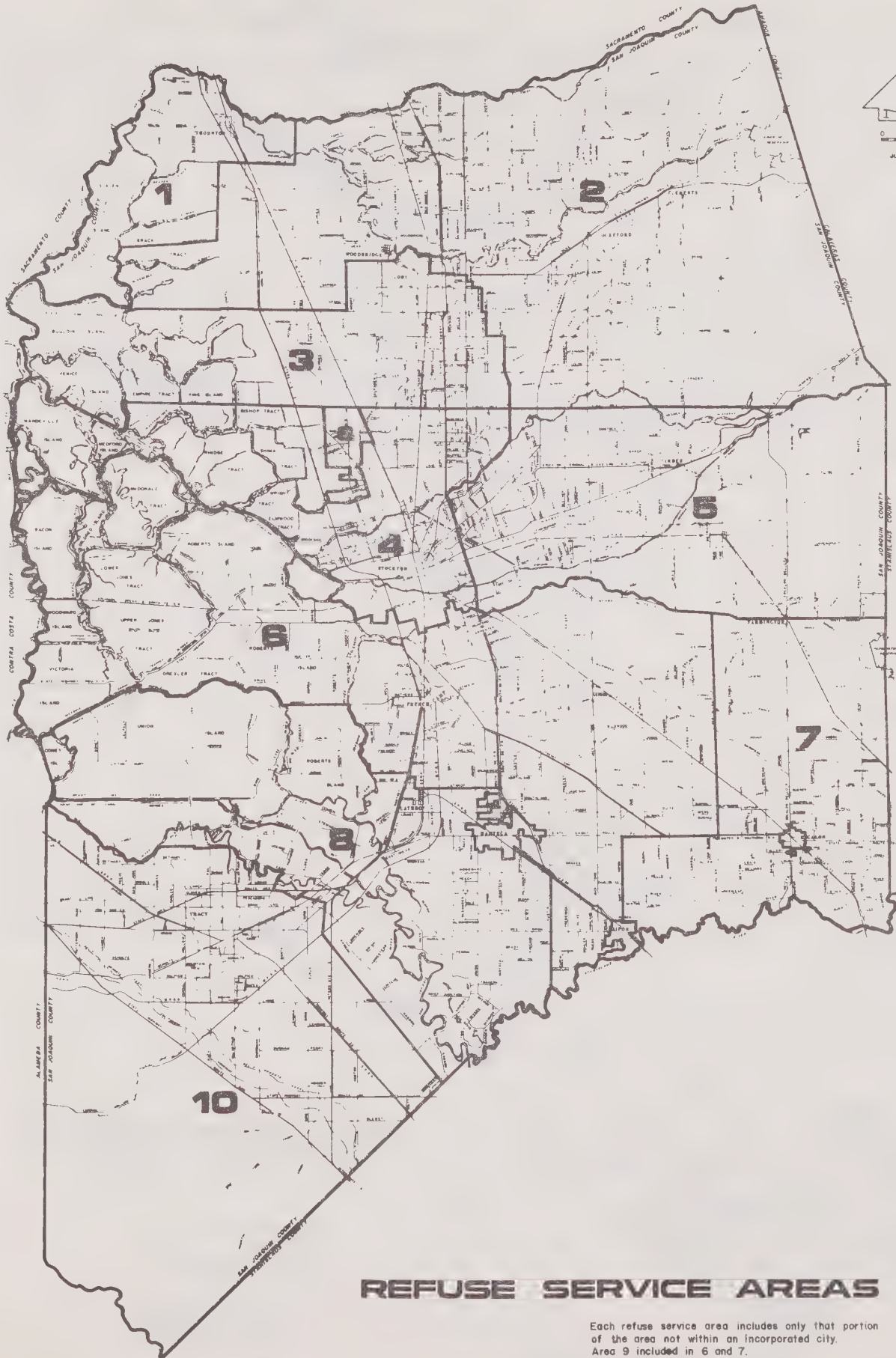




FIGURE 51

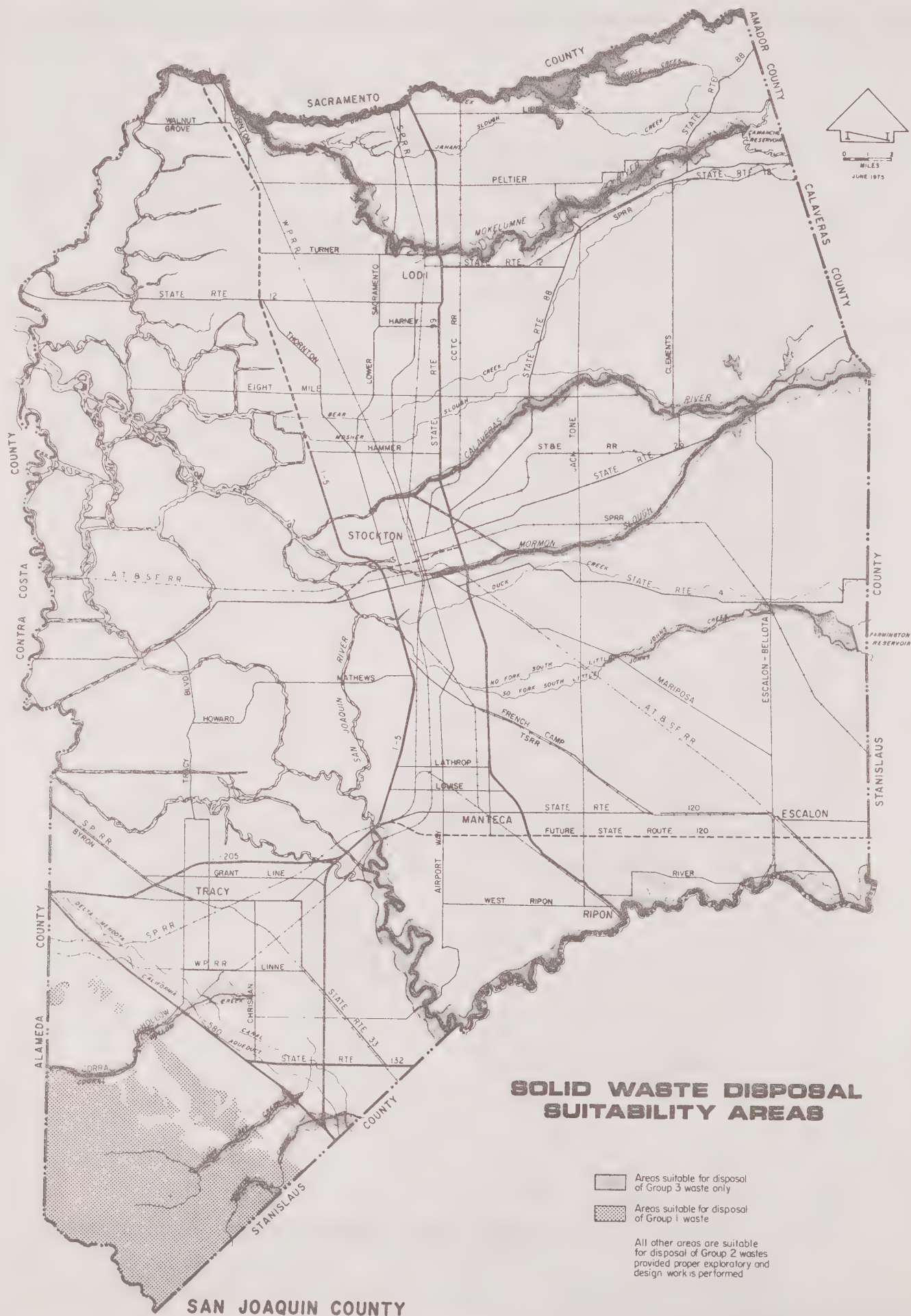
Recognized  
SOLID WASTE DISPOSAL SITES  
San Joaquin County

Facility	Map Location	Estimated years useful life	Operator	Owner	Function	Operational Status
Austin Road	Area 2	+5 years (10) use to depletion	Private Collector	Stockton	Landfill	For City and franchise collectors
Tracy/Corral Hollow	Area 3	13 years (7)	County	Tracy & County	Landfill	Public and franchise collectors
Harney Lane	Area 1	Site nearing depletion. A replacement site is to be located nearby.	County	Lodi (new site to be owned by County)	Landfill	Public and collectors
Lovelace Transfer Station (contract being renegotiated)	Area 2	Solid Waste plan proposes phase-out	Private by contract w/ County	Private	Transfer Station	Franchise collectors and people of Manteca
Foothill (contract being renegotiated)	Area 1	Solid Waste plan proposes phase-out	Contract	Private	Landfill	Public franchise collect, & material from transfer station
Forward, Inc.	Area 2	+ 15-20 years (10)	Private	Private	Landfill w/proposed recycling	Permit prohibits public use & franchise collector use at present time
French Camp	Area 2	10+ years	Contract	Stockton	Landfill	Closed to public. Currently city garden refuse and industrial wastes only.



## REFUSE SERVICE AREAS

Each refuse service area includes only that portion of the area not within an incorporated city.  
Area 9 included in 6 and 7.





Disposal sites are categorized by the type of wastes (Group 1, 2, or 3) which can safely be accommodated at that site. Soils and drainage, are among many physical aspects that limit the types of disposal sites in various areas. Suitable and limited disposal areas are shown on Map 53. It is desirable to have such land uses away from population centers, preferably occupying "marginal" land.

Rehabilitation and reuse of disposal sites is easier if it is a sanitary landfill. At the present time, sites within the County have not been rehabilitated; however, in other areas they have been used for agriculture, recreational and urban development purposes. The present County sites are in designated agricultural areas where recreation, conservation and agriculture would be consistent future uses.

The possibility of using composted solid waste and sewage sludge from the Bay Area from deposition in the Delta to shore up levees and replace the peat topsoil is being explored. A demonstration project is proposed for Mandeville Island (9).

## FIRE PROTECTION

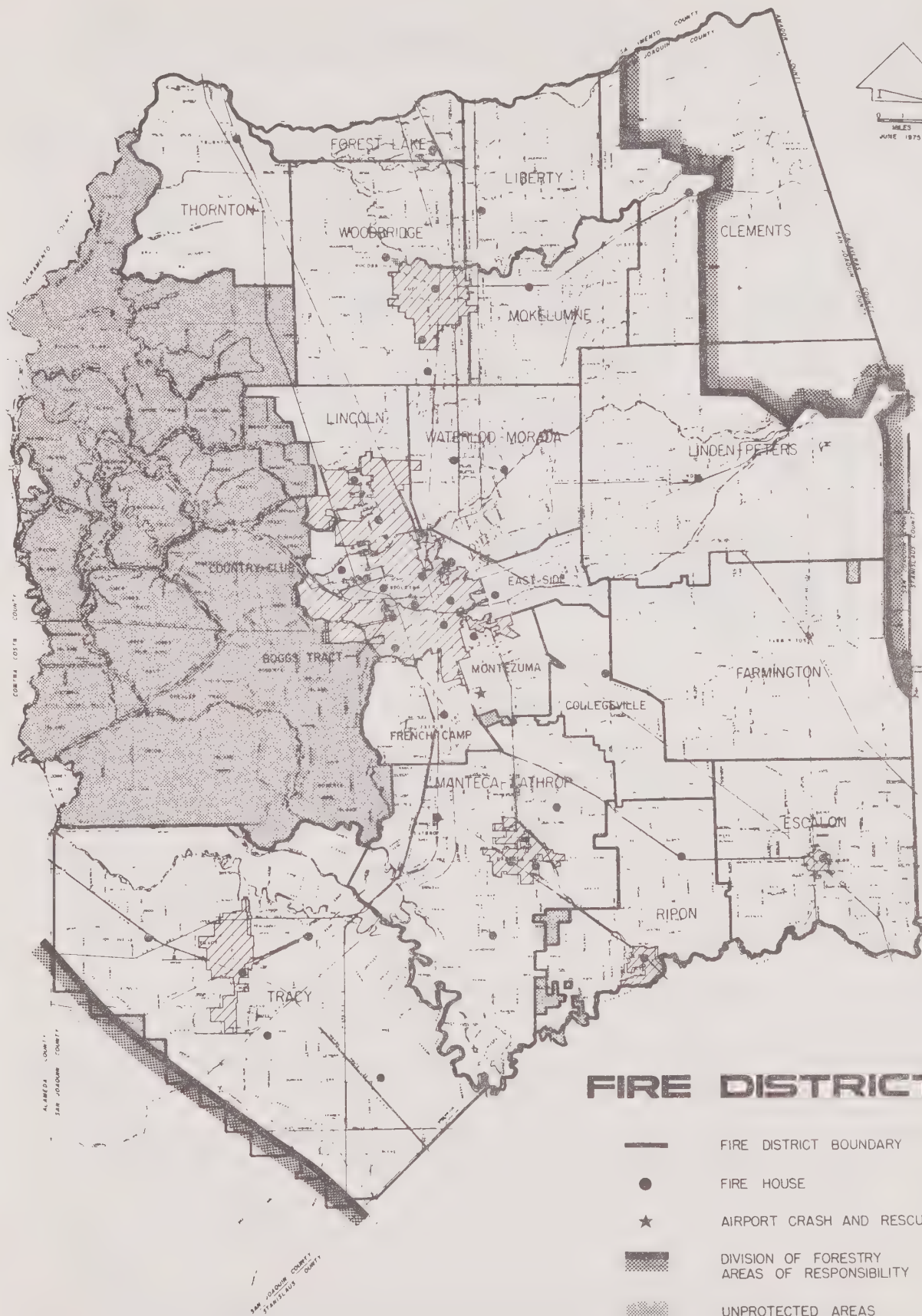
Fire protection in San Joaquin County is currently provided by four of the cities, the County, private individuals, the State Division of Forestry and fire districts. Service area boundaries and fire station locations are shown on Map 54. County safety personnel at the Stockton Metropolitan Airport are responsible for crash and rescue efforts at the airport and have mutual aid agreements with neighboring districts. Fires in the unprotected areas are generally the responsibility of private individuals unless it is a brush or range fire within jurisdiction of the State Division of Forestry.

Presently there are 21 fire districts, each governed by an elected board. All of these districts use volunteers and 16 have full-time paid men. Farmington, Forest Lake and Escalon Protective Fire Districts are totally volunteer departments, with Escalon considering consolidation with the surrounding Escalon Rural County Fire Protection District. All of the districts have mutual aid agreements with each other and the cities. There are four city departments.

Scattered urban-type developments and numerous homesites in rural areas are fire protection problems. Such developments are often too far from fire stations to permit reasonable response times, yet they are not large enough to justify or pay for a new local station (1). Often the private wells and/or water systems do not provide adequate water for fire fighting, and the equipment and available manpower in rural districts is limited. "As this type of development increases in a rural district, its impact is to penalize the district as a whole by lowering its insurance rating and forcing expenditures on such expedients as tanker trucks. . . . Over time, it may be impossible for the district to avoid the cumulative deficiencies caused by this type of development (1)."

Unincorporated urban areas, adjacent to a city, but served by a rural district, also necessitate higher levels of protection; therefore, the tax rate for the whole district may be greater in order to provide this protection. On the other hand, the uses in the urban portion of a district provide a broader tax base and subsequently greater revenue which can be used to provide more and better men and equipment for the benefit of the district as a whole. However, this tax base is decreased as previously developed unincorporated areas are annexed to the cities, making it difficult for the district to maintain the same level of service. The situation is avoided when there is not urban development in the unincorporated area.

Location of future fire stations and service areas is based upon the planned land uses and projected population densities.





## **POLICE PROTECTION**

Law enforcement in San Joaquin County is provided by each city for their incorporated areas and by the County Sheriff's Office in the unincorporated areas. The California Highway Patrol patrols and investigates accidents on roads in unincorporated areas.

Presently, the Sheriff's Office is located in the County courthouse in Stockton with the jail facilities in French Camp. There are no substations, however, programs of patrolling have been instituted on a district basis.

The rural nature of the County precludes the possibility of an urban level of law enforcement in all areas. It is expensive and difficult to provide urban levels of protection to small isolated areas of development. Those who live in a rural environment should not expect the frequency of patrol and fast response possible in large urban centers.

On the urban fringe, costly duplication of effort occurs when city police cross unincorporated areas to patrol other parts of the city, while County Sheriff's patrols cross city boundaries to patrol the unincorporated areas. Residents in unincorporated pockets within a city or on the fringes of a city could conceivably contract for city police protection.

Law enforcement agencies can anticipate development and plan accordingly if an orderly manner of development is followed. Crime can to a degree be prevented by utilization of good design during site planning; e. g., clustered neighborhoods, open areas, limited street patterns, and imaginative and practical location of specific uses.

## **EMERGENCY SERVICES**

The San Joaquin County Emergency Services Council is organized to respond to emergencies and disasters caused by natural or wartime conditions. The Council has assigned emergency operating functions to specific agencies and has designated personnel to serve in the command and control role in a widespread emergency. The Council would respond with the following services: providing emergency medical treatment for the injured, operating as part of a regional communications network, instituting emergency law enforcement deployment to protect public safety, and restoring to operation those municipal facilities which have suffered damage.

Ambulance service is provided primarily by private companies; however, service is also provided by the County Hospital and the Ripon Fire District.

Ambulance service zones have recently been adopted by the Stockton City Council and the County Board of Supervisors (16).

At the present time, there are no paramedics in the County; however, the program is being investigated by the ambulance firms and fire services.

## PROVISION OF PUBLIC SERVICES

Local public services are provided mainly by the city government, the County and special districts. Of these agencies, city government is the best equipped to provide urban services on a coordinated, efficient basis.

Older development in unincorporated areas has often occurred without provisions for urban services and may still be without public sewer, water, or drainage. Standards and regulations now generally require urban services for urban type development.

Outside of incorporated cities, there may not be an established entity available to provide the required services. In San Joaquin County urban development has often been approved with the creation of special districts to provide services.

There are almost 200 special districts in the County. Although many of these districts provide specialized services, often agriculturally related, a number provide urban services to unincorporated areas, mainly in rural communities or on the unincorporated fringe of a city.

FIGURE 52

TYPES OF SPECIAL DISTRICTS IN SAN JOAQUIN COUNTY	
<u>District Type</u>	<u>Number</u>
Air Pollution Control	1
Cemetery	2
Drainage**	3
Fire*	21
Flood Control and Water Conservation**	2
Harbors and Ports	1
Health	1
Levee**	4
Highway Lighting*	6
County Maintenance*(can provide lighting, sewers, water supply, or drainage)	62
Mosquito Abatement**	2
Reclamation**	45
Sanitary*	3
County Sanitation*	1
County Service Area*	9
Sewer Maintenance*	1
Resource Conservation	4
Storm Water Drainage**	2
Transit	1
California Water**	4
County Water*	2
Water Agency**	3
Water Conservation**	4
County Waterworks*	2
Irrigation**	7
<b>TOTAL</b>	<b>193</b>
*Districts which usually provide essential urban services	
**Districts which might service either urban or agricultural land uses.	
Source: Mc Donald & Short, Inc. <u>Special District Study, San Joaquin County.</u> August, 1974.	

## SPECIAL DISTRICTS STUDY

A study of special districts in the County was completed in 1974 by Mc Donald & Smart for the Council of Governments (1). The major findings of the study were the following:

- The County has 194 special districts;<sup>1</sup> only three counties in the state have more.
- Twenty-four of the districts were formed since 1970. Although forty districts merely provide street lighting, there is a proliferation of districts.
- Reclamation and maintenance districts are the most numerous.
- Most districts serve a single purpose.
- Nineteen of the districts are inactive and should be dissolved or reorganized.
- Maintenance districts have proliferated because urban development has been approved where other governmental alternatives, such as cities or large local districts, were not available. In addition, maintenance districts are easy to form.
- A large percentage of the County's population lives in the unincorporated area. (40% in San Joaquin County compared to 23% statewide)

Since special districts are associated with unincorporated fringe areas, the study discussed the adverse effects of fringe area development:

- The County is forced into providing urban services, which it cannot efficiently do.
- Irregular boundaries of service areas, often illogical in the urban areas and isolated in the rural areas, cause inefficiency in providing service.
- Unincorporated pockets have blocked the logical extension of city services in some cases, and in others have necessitated that the cities meet the demands for services in these areas.
- Financial problems occur when a district's tax base is eroded by city annexations or when capital expenditures are necessary for a small district.
- The normal city share of state and federal financial aid is less with a large percentage of the population outside the city limits.

The study estimated that if the unincorporated urban area around Stockton were inside the city instead of outside the net savings to the County would be \$717,000 or nearly \$.10 on the County tax rate.

Generally, the recommendations of the study relate to the reduction in the number of existing districts, and the creation of new districts mainly as a means of consolidating districts and increasing efficiency. Elimination of the need for special districts by annexation to cities is advocated wherever possible. For unincorporated communities with special districts, the formation of a County Service Area or a Community Service District may be practical to consolidate the responsibility for urban services under one agency.

The COG has formed a committee to pursue the specific recommendations resulting from the Special Districts Study.

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<sup>1</sup>Since the study was completed in 1974, a few districts have been dissolved.



## LAFCO and District Spheres of Influence

The Local Agency Formation Commission has adopted spheres of influence for most districts and governmental agencies within the County.<sup>1</sup> LAFCO approves or denies applications for annexations, withdrawals, incorporations, formations, consolidations or dissolutions applying to special districts or cities within the County. For most districts and municipalities LAFCO has adopted spheres of influence.<sup>2</sup> Applications before LAFCO are reviewed on the basis of a series of policies (14), including the following:

- "Proposals which would result in duplication of authority to perform similar functions will be opposed."
- "Annexation to an adjacent city will be favored over a proposal for providing urban services by special districts."
- "Boundaries which create islands, strips or corridors within an agency providing urban services shall be avoided."
- "Annexation to or formation of a multiple service agency will be favored over a proposal for providing urban services by a multiplicity of limited service districts."
- "Annexation to an existing agency will be favored over a proposal for forming a new agency to provide the same services."
- "A proposal that does not establish an economically sound basis for financing required services will not be approved."
- "Economical efficiency of a larger annexation will be favored over a proposal for 'single parcel' or 'piecemeal' annexation."
- "A proposal establishing urban encroachment of areas designated by the County General Plan for open space or agricultural use will be opposed unless it complies with a previously adopted Sphere of Influence of an incorporated City."
- "In adopting, reviewing and updating Sphere of Influence studies. . . the Commission shall periodically identify current opportunities to reduce the number of special districts in San Joaquin County. Principal opportunities so identified will be: 1) overlapping districts which can be merged into a single multi-purpose district providing the same services and controls, 2) multiplicity of small districts which can be consolidated into a single district providing the same services and controls for a larger area, 3) inactive district which can be dissolved."<sup>3</sup>

For some agencies LAFCO has adopted a zero sphere of influence. This means that expansion of the agency's boundaries will be discouraged. Special districts within a city's sphere of influence generally have been given a zero sphere of influence.

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<sup>1</sup>Powers of LAFCO are specified in the State Government Code, Section 54790.

<sup>2</sup>"Sphere of influence" means a plan for the probably ultimate physical boundaries and service area of a local governmental agency. (State Government Code, Section 54774)

<sup>3</sup>LAFCO, Home Rule Regulation of Local Agency Proliferation, pages B-3 and B-4 (14).

County utility maintenance districts are exempt from LAFCO review. Therefore, these districts can be (and have been) created without receiving prior approval by LAFCO. Although LAFCO has no statutory authority concerning these districts, it appears that the goals of LAFCO are thwarted without the Commission having at least an advisory role in the formation of maintenance districts.

#### POLICIES RELATING TO PROVISION OF SERVICES

The policies of this Land Use/Circulation Element address the provision of public services for new development. The basic intent of the policies is to ensure adequate facilities for future development while preventing some of the problems which have occurred in the past.

These policies include the following:

- "All possible means will be used to ensure that all existing urban areas are provided with basic services, including storm drainage, sanitary sewers, water supply, and solid waste disposal, and that all future urban development will coincide with planned extension of these basic services."
- "In urban centers with municipal sewer and water, residential expansion within growth areas shown on the General Plan will require the extension of municipal facilities."
- "In urban centers without municipal sewer and water, a community design plan will be required prior to residential expansion."
- "Further expansion of rural centers, until such time as they have municipal sewer and water, should not be encouraged."

Residential development without urban services requires larger parcels, and is extravagant in terms of land consumption. When unserviced development occurs on a city's fringe, it may block later logical extensions of sewer and water (1).

In conformance with the above policies, residential development on the fringes of an incorporated city would require city services. In some cases the city might require annexation; in other cases services might be made available by the city on a contract basis rather than through annexation. No matter which method is used, the intent of the policy is to strengthen the connection between the approval of new development and the provision of services. The city, the agency best equipped to provide urban services, will be the agency in fact providing them. Urban growth will coincide with extension of services, and special districts will not be required or encouraged.

The public services and facilities available in each urban and rural center are discussed in other sections of this chapter and in Chapter IX, Area Plans.



*Chapter VIII*

**ENVIRONMENTAL CONSTRAINTS  
TO URBAN DEVELOPMENT**





## ENVIRONMENTAL CONSTRAINTS TO URBAN DEVELOPMENT

Aspects of the environment, both man-made and natural, may act as constraints on additional urban development. Because of environmental considerations, regulations (local, regional, state, or federal) may be imposed to protect the public interest, either in terms of health and safety or for the purpose of conservation. These types of regulations may apply to the entire county or they may apply only to certain areas. Although environmental constraints could conceivably limit the total amount of urban development in the county, this plan is based on the assumption that with proper planning and controls this is unlikely to occur during the planning period.

Environmental considerations do act to direct development away from certain areas and may require that measures (such as modification of construction techniques) be taken to prevent or mitigate environmental problems.

The following problems are those which are or could become the most serious constraints on urban development in San Joaquin County: flooding, water supply and quality, sewage disposal, air quality, noise, and loss of land from agricultural production. The Delta will be treated separately as a multi-hazard area. Other environmental problems are dealt with elsewhere in the Element.<sup>1</sup>

### FLOODING<sup>2</sup>

At one time a large portion of what is now San Joaquin County was a marshy area or subject to seasonal inundation. Water flow within the County has been controlled mainly by the construction of levees but also by channel improvements, the creation of diversions, and the building of upstream dams and reservoirs. These measures have resulted in varying degrees of flood protection

The highest level of flood protection is needed in those areas with existing or planned urban development. It is in these areas where flood damage can be the most extensive. The direct inundation or force of the floodwaters may cause loss of life and property as well as disrupt utility and transportation services. Floating debris, sewer or septic tank backup, seepage, erosion, siltation, and water pollution may be just as serious as the floodwaters themselves.

Although it is not possible to ensure a 100% protection against any hazard, protection from an intermediate regional flood is generally considered to involve an acceptable level of risk.<sup>3</sup>

<sup>1</sup>See Chapter I, Physical Environment for seismic and soil problems, and Chapter VI, Public Services and Utilities for drainage and waste disposal problems.

<sup>2</sup>The COG's Safety Element will contain a more detailed discussion of flooding (3).

<sup>3</sup>The intermediate regional flood is a flood that has a one percent chance of occurring in any given year but may occur at any time. Although sometimes called a 100-year flood, this term can be misleading since it is possible that a so-called "100-year" flood could be followed by another "100-year" flood the next year.

At this time the available flood information is quite general except for certain areas. Map 55 is being used by the County as an indication of problem areas until more definite boundaries are available (1).

Precise flood information is available for one area of the County (4,5). Map 56 shows flood boundaries of an intermediate regional flood within the area studied.<sup>1</sup> During the next year detailed information on flood hazards throughout the County area will become available.

San Joaquin County is participating in the Federal Flood Insurance Program. As a part of this program boundaries of flood hazard areas for intermediate regional floods will be delineated and depths of waters for a flood of this magnitude will be determined. Flood insurance is available to property owners at a subsidized rate. New buildings constructed with the assistance of a federal program will have to be elevated above the water level expected in an intermediate regional flood.

A County flood plain zoning ordinance is in preparation, but appropriate zoning can be applied only when adequate flood hazard information is available. For an individual project in a specific location, the County can request a flood hazard report from the Corps of Engineers. The Corps will give the likelihood of flooding and the anticipated water depth for an intermediate regional flood. More adequate evaluation may then be given to the suitability of the location for the project; or the project may be conditioned to require floodproofing. At the present time the County Building Inspection Department informs applicants for building permits of possible flooding before permits are issued and recommends floodproofing measures. Unfortunately, subsequent buyers of homes are usually unaware of any flood hazard.

### **WATER SUPPLY AND QUALITY**

Portions of the County face a serious problem in obtaining adequate quantities of good quality water (1). Expanding population and development, combined with irrigation needs in an agricultural county, is creating continuing and increasing pressure on the present water supply. Presently ground water provides approximately 30% of the water supplies in the County, and all domestic supplies.

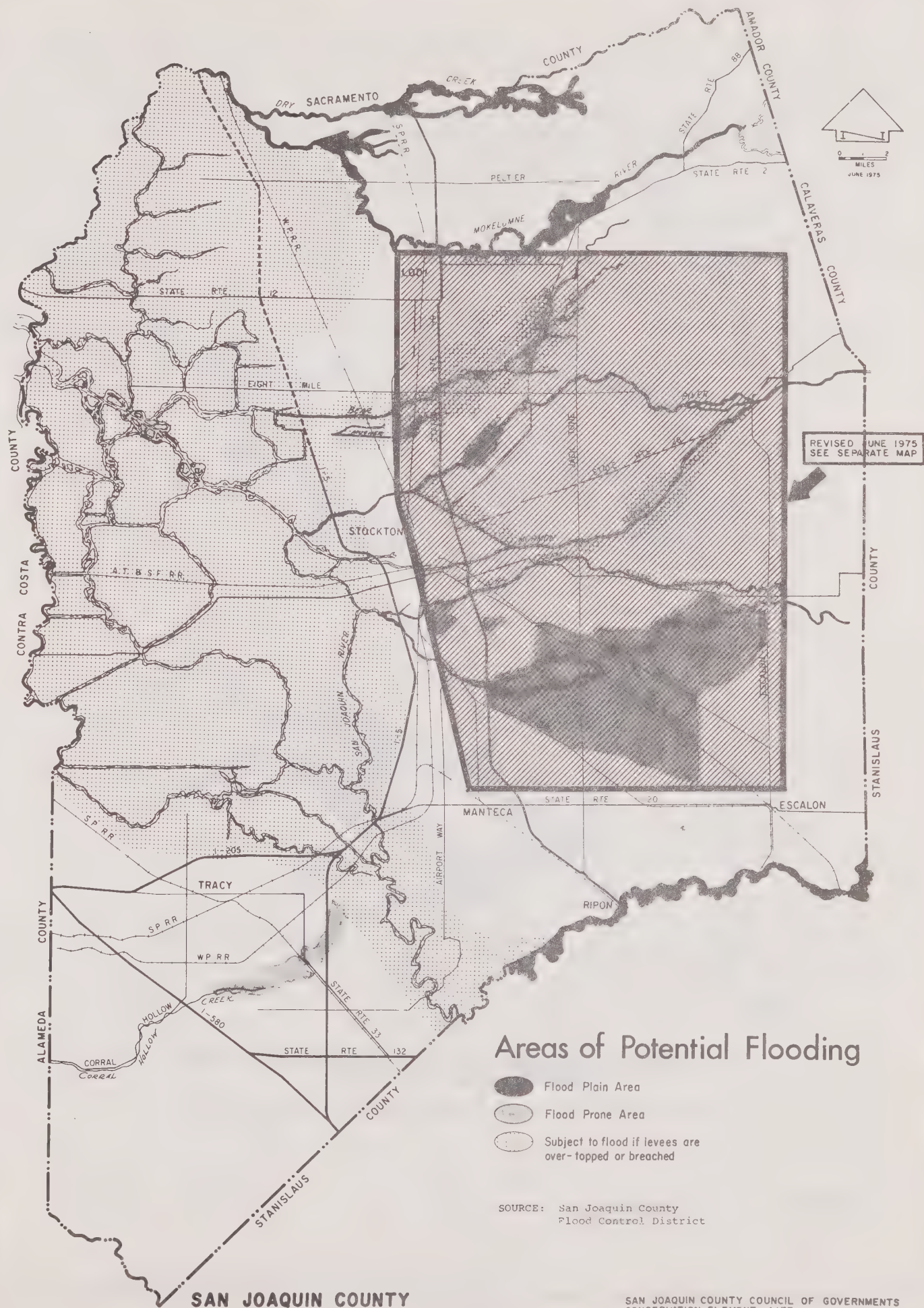
In the Stockton area the ground water supplies have been used faster than they have been replaced. Overdraft of the ground water basin has caused saline waters which underlie the Delta to move eastward and make water in some existing wells unusable for domestic purposes.<sup>2</sup> Continued overdraft could result in subsidence, which would diminish the recharge capabilities of the basin. In order to stop this overdraft, surface water supplies must be utilized.

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<sup>1</sup>The U.S. Army Corps of Engineers is currently extending the study area to include the area southwest and northwest of Stockton. Both overflow and sheet flow limits are shown on more detailed maps available at the County Planning Department. Also available are the limits of the standard project flood, a flood that would occur should all the conditions which contribute to floods be present at the same time.

<sup>2</sup>This has occurred in West Stockton, French Camp and Lathrop.







## AREAS SUBJECT TO INTERMEDIATE REGIONAL FLOOD

NORTHEAST AND SOUTHEAST STREAM GROUPS, STOCKTON AREA

■■■■■■■■ LIMITS OF STUDY AREA

Source: U.S. Army Corps of Engineers, Flood Plain Information.  
More detailed information is available at the San Joaquin County Planning Department.



The Stockton East Water District is building a water treatment plant in south-east Stockton to treat surface water for domestic use. Initially, water from New Hogan Reservoir will supply the plant. Future water may be available from New Hogan Reservoir, New Melones on the Stanislaus River, Folsom-South Canal, the Peripheral Canal (if constructed), or the Delta.

With a shortage of water, water conservation measures become important. Some urbanized areas of the County pay a flat rate for water regardless of the amount used. Monitoring of water usage, with changes based on amount used, could prevent some waste. Surface application of wastewater from sewer plants and canneries, with carefully enforced quality standards, could assist in recharge of the aquifer, although probably not to a substantial extent.

Ground water quality problems in addition to those associated with overdraft are occurring in some areas. Water in the Tracy area, for example, has a high total dissolved solids content. The City has contracted with the Bureau of Reclamation to receive water from the Delta Mendota Canal and will treat it for domestic use.

One of the most serious problems that may have to be faced in the future is contamination of ground water as a result of present waste disposal to land by means of leach lines from septic tanks or other disposal systems. In tight soils, that may support a high water table, intense pollution could result in localized areas. Problems have already appeared for owners of shallow wells or wells that are not properly sealed to keep out contamination from higher water strata.

#### **SEWAGE DISPOSAL**

In order to prevent future health problems without severely restricting construction on new parcels, standards have become stricter on development outside of municipally serviced areas. Regulations of the Regional Water Quality Control Board and the County Local Health District limit the size of a new parcel which can be created if public sewer and water are not available and limit the extent of development that can occur on existing parcels which do not have public utilities.

In the unincorporated areas of the County, sewage treatment plants are rare (see Chapter VI) and septic tanks have been used extensively for development. There has been concern over the effect of septic tanks on an area. Improper maintenance can result in backup or surfacing of effluent which can pose a health hazard for the owner and adjacent property owners. More importantly, the soils in some areas is becoming totally saturated by effluent from septic systems. Severe health hazards could ultimately present themselves if additional area is not available for new leach fields.

The soils throughout much of the County have characteristics which present limitations on the use of septic tanks. Although septic tanks are not prohibited in any portion of the County, building site characteristics must be considered in their use (Map 57).



To prevent future problems, State guidelines (10) on sewage disposal have been issued and have been incorporated into local regulations (11).

Certain amounts of land are now required for septic tank leach field disposal. This area must be within specific distances of wells, buildings and property lines and cannot be covered by structures, paving, or swimming pools. Generally speaking, a new building site which will have a septic tank and well cannot be created unless it contains one and one-third acres. The exact size is dependent upon a number of factors, including soil percolation rates and depth to ground water. The regulations protect homeowners who may eventually desire a large home with a garage, patio, swimming pool and other amenities.

On existing parcels the size of the house might be restricted and the building of a swimming pool prohibited if either might interfere with the operation of the leach field.

### AIR QUALITY

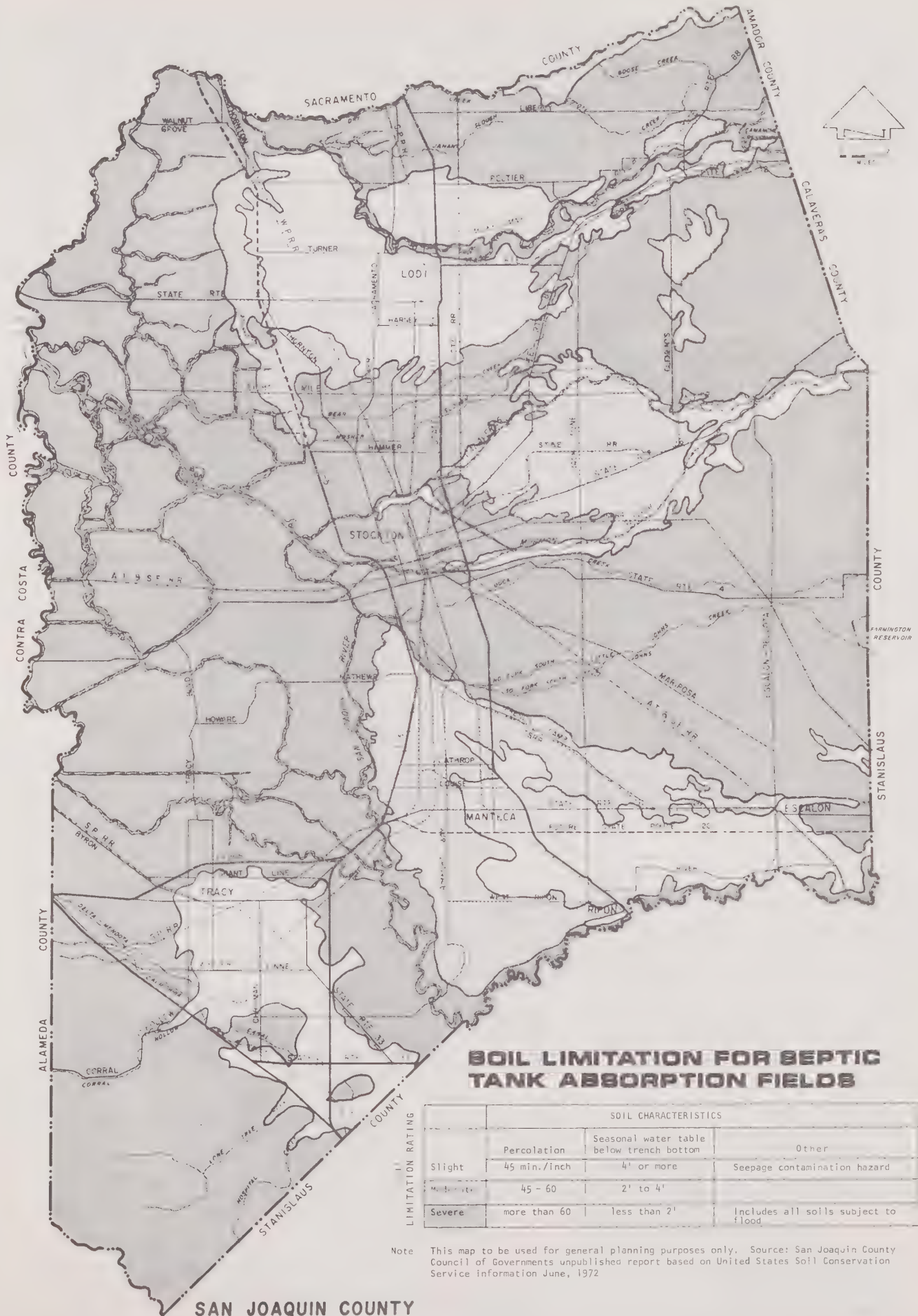
The climatic conditions which prevail in the County provide opportunities for pollutants to accumulate in the atmosphere (see Chapter I). These same conditions, combined with cold heavy air close to the ground, also precipitate fogs. Often the colder heavy air, close to the ground, is trapped by a warmer layer of air above creating an inversion layer. This layer prevents circulation of the air and pollutants cannot escape. Photochemical smog is most prevalent in the summer and fall and is the result of the sun's interaction with and effect upon chemical pollutants (12).

Man's activities are the generators of pollution. Primarily, there are chemical pollutants and particulate matter.<sup>1</sup> Primary sources of both types of pollutants are cars, planes, trains, ships, boats, and other motor driven equipment using fossil fuels. Industrial and other stationary sources are also contributors. Particulate matter, a comparatively serious air quality problem in San Joaquin County, is also generated by agricultural plowing, burning, and other activities; winds blowing across fields raising dust (particularly peat dirt from the Delta during May and June); and from construction and excavation activities.<sup>2</sup>

Local, State and Federal regulations are being made and enforced, which will help ensure control of pollutant levels. Changing industrial and agricultural practices are also helping to maintain and improve the County's air quality.

<sup>1</sup>Air pollution statistics are maintained by the San Joaquin County Air Pollution Control District. A statistical summary can be found in the COG Conservation Element for years 1967-1973 (inc.) (1). All figures are from readings taken at the Local Health District building in Stockton.

<sup>2</sup>In San Joaquin County approximately 80% of the reactive hydrocarbons and carbon monoxide are from mobile sources, whereas particulate matter and sulfur dioxide are primarily from industry and agriculture.





The General Plan is based on the assumption that the County's population will steadily increase to 417,000 people by 1995. The Plan also assumes that commercial, industrial, recreation, transportation and other supporting land use developments will increase commensurately. Increased development and activity does result in increased air pollution, given existing conditions. There will be some decrease in agriculturally related air pollution generated as a result of the increased urban development.

It is also an assumption of the Plan that air pollution will be substantially reduced in the County and the Central Valley. The underlying assumptions are: judicious land use planning and consistent land use decisions; increased federal, State and local air pollution control regulations; improved technology resulting in fewer emissions from stationary and moving sources; and improved transit systems such that the necessity to use the automobile will be decreased.

At this time, however, there is a doubt as to whether or not San Joaquin County will meet the National Ambient Air Quality Standards for the Federal Clean Air Act.<sup>1</sup> The County will be participating in an Air Quality Maintenance Study, initiated by the State Air Resources Board. This study, to be completed in 1976, should provide information needed to know the seriousness of the air quality problem and to accordingly prepare proposals to combat it.

### NOISE

Noise can have serious adverse effects on people: hearing loss, chronic sleep disturbance, severe speech interference, and physiological stress reactions. Secondly, noise distracts, interferes with privacy, and annoys.

In San Joaquin County, noise problems are most prevalent near transportation corridors. Industrial and commercial areas are also noise generators which disturb some residential neighborhoods.

The Council of Governments' Noise Element surveyed noise in the County and analyzed noise sources and people's reactions to noise. The noise analysis revealed that small rural communities, which would be expected to be very quiet, often are not since high volumes of truck traffic on major roads destroy the peacefulness of the country area even though background levels are low.

In terms of residential noise levels, neighborhoods closest to very high volume freeways tend to have the highest overall noise levels. Presently 11,000 to 12,000 persons in the County live in residences directly bordering on critical noise roads. In such homes, conversation, television viewing, sleep, and other everyday activities become extremely difficult due to noise interference.

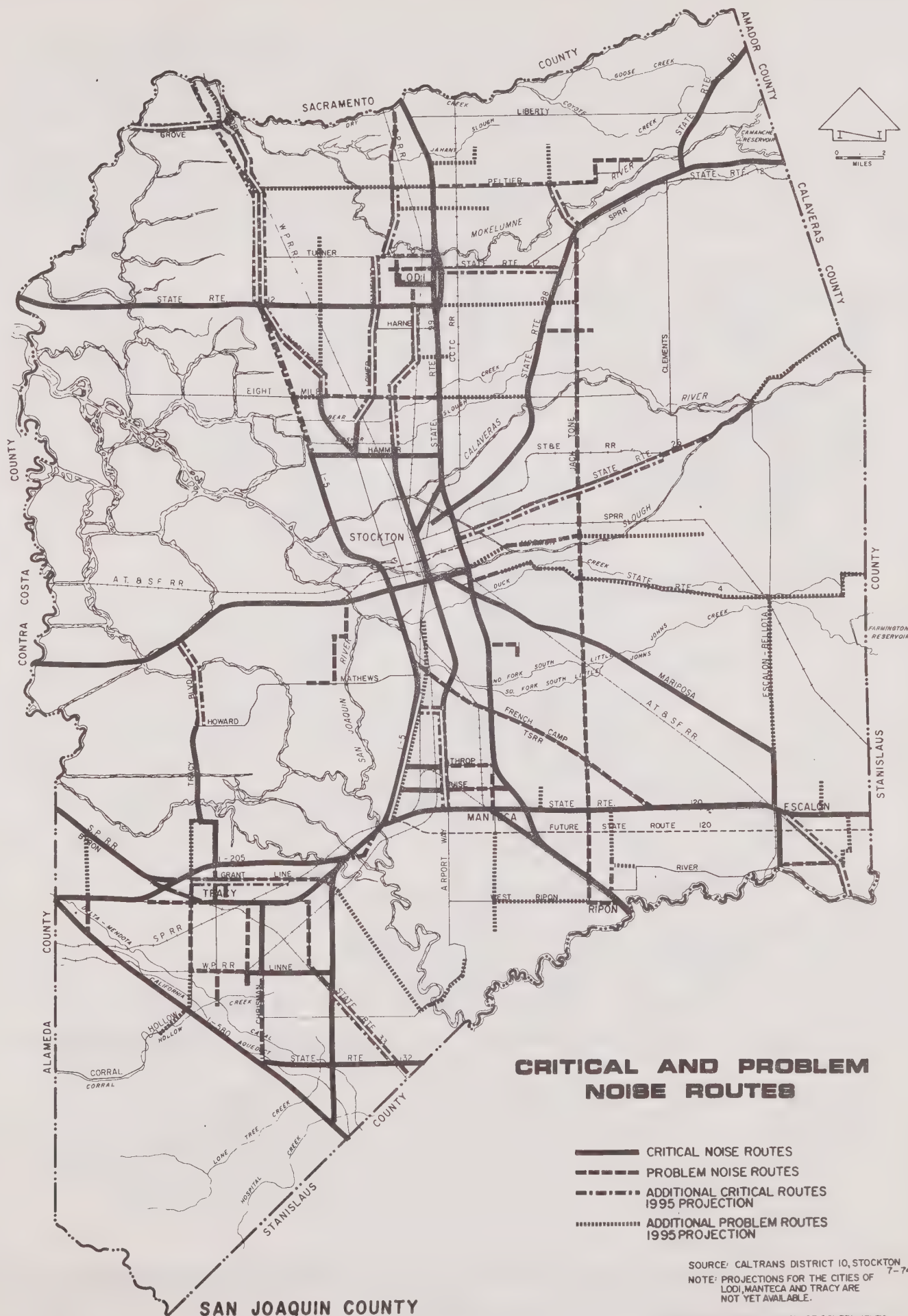
Map 58 indicates "critical" and "problem" noise routes.<sup>2</sup> "Problem" noise routes are those with 100-300 trucks or 5,000-10,000 vehicles per day. "Critical" roads are those with more than 300 trucks or 10,000 vehicles per day on an annual average.

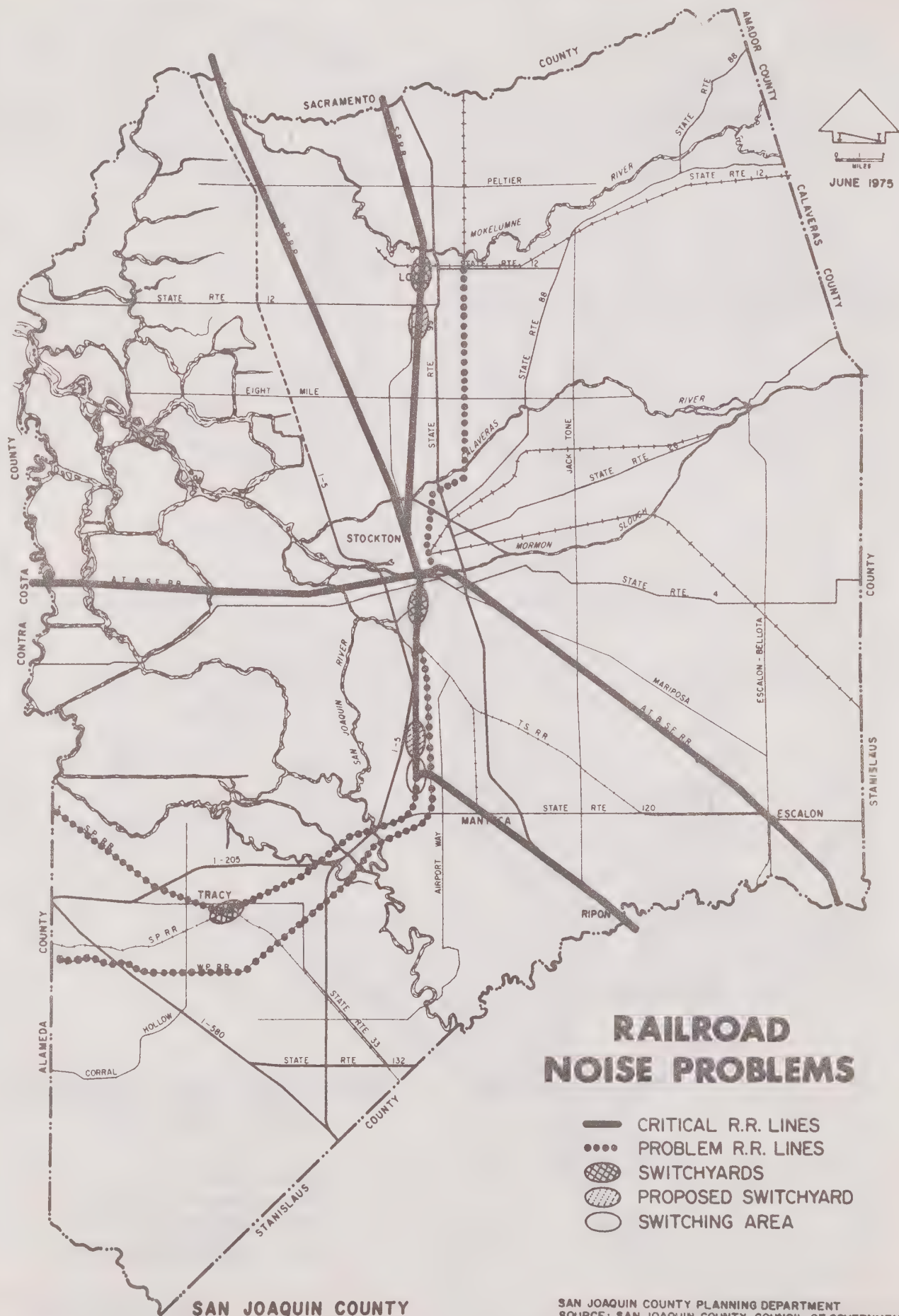
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<sup>1</sup>Standards to be met by 1977: carbon monoxide, 9 parts per million (ppm); nitrogen oxides, 0.05 ppm; oxidants, 0.08 ppm.

<sup>2</sup>For city areas use the COG Noise Element (4).







SAN JOAQUIN COUNTY PLANNING DEPARTMENT  
 SOURCE: SAN JOAQUIN COUNTY COUNCIL OF GOVERNMENTS  
 NOISE ELEMENT 7/74

Map 59 shows noise "critical" and "problem" railroads. "Problem" rail lines are those with 4-10 operations per day on an annual average. "Critical" lines are those with more than 10 operations per day. Railroad switchyards are "critical" noise facilities while switching areas are "problem" facilities.

"Problem" routes and facilities have been delineated to identify areas where noise considerations should enter into the design and location of noise sensitive uses (homes, schools, hospitals). "Critical" noise routes and facilities are those which are definitely incompatible with homes, schools, and hospitals if noise reduction measures are not employed.

Aircraft noise is a serious noise problem in parts of the County. For example, jet flights from Stockton Metropolitan Airport impact a residential neighborhood to the northwest. This situation can have severe environmental constraints on development within noise impacted areas and at the airport. (This problem is discussed further in the section on Stockton Metropolitan Airport in Chapter V).

Most adverse noise impacts in new development can be mitigated or eliminated by development standards specifying a combination of proper site design, building insulation, barrier walls, and proper construction techniques. Zoning out noise sensitive uses in high noise areas is also an important and effective technique.

#### **LOSS OF AGRICULTURAL LAND**

Most population centers in the County are located on prime agricultural land. Urban growth is to be guided to these centers. This growth can occur by upward expansion, by filling-in vacant areas, or by outward expansion. Although somewhat higher densities are being planned in the cities and filling-in will occur, the major growth will be outward. The investments in services in existing centers, combined with the difficulties of new-town development, make it unlikely that urban growth could be channeled to areas on non-prime land.

Proposed State legislation would prohibit urban expansion onto prime agricultural land except under certain circumstances. Should a bill such as this be enacted into law, growth within the County would be severely constrained.

#### **MULTI-HAZARDS IN THE DELTA**

The California Delta is treated separately here because it is a multi-hazard area, with severe environmental constraints for urban development. These include the peat soils, high water tables, poor accessibility, heavy winter fog, and variable degrees of flood protection from the deteriorating levees.

The peat soils are unstable and subject to subsidence, caused mainly by oxidation, compaction, and erosion. This subsidence of the Delta islands (to as much as 20 feet below sea level), puts great hydrostatic pressure on the levees, with water on the other side literally pushing to get in. The instability of the peat soils is quite apparent when traveling on the uneven island roads, which have to be rebuilt frequently.



Peat soils have another property which makes the Delta a hazardous area: the soils burn. Once a fire starts, it is extremely difficult to extinguish, with burning beneath the surface which often smolders for months and then erupts unpredictably. Rapid response to fires is seldom possible, since the waterways with infrequent bridge crossings, make accessibility difficult.<sup>1</sup>

The levees in the Delta, many of which were constructed more than 100 years ago, do not offer sufficient flood protection. The major factors causing levee deterioration are construction on unstable, subsiding peat soils; hydrostatic pressure; erosion by wind, tides, and boats; and difficulty in levee inspection. It is estimated that 310 miles of levees need to be rebuilt in order to give 50-year flood protection to agricultural areas and 100-year protection to urban areas (6).<sup>2</sup>

In the event of a major earthquake the Delta area (including the levees) may experience liquefaction, a reaction of soil and water which is similar to the movement of quicksand. In addition, earthquake-induced seiches (oscillation of the water surface) are also a possibility in the waterways and could result in overtopping of the levees (6,8). More investigation needs to be done to determine the magnitude of these dangers.

Whatever problems exist for urban development in the Delta, the value of the area for other uses cannot be overemphasized. It is important that the islands, channels and levees continue to exist for recreation, farming, transportation corridors, natural gas extraction, and wildlife habitat. Over the years a series of reports and plans for the Delta have been prepared by various agencies, but little action has been taken.

The protection afforded by the levees is crucial in preserving the Delta's character. In their present state, frequent breaks or overtopping can be expected. Reclamation of the islands may not always follow as expenses increase. If islands remain permanently flooded, there will be several effects: additional loss of fresh water by evaporation, increased windwave erosion on adjacent islands, loss of character and desirability for recreational purposes. The Department of Water Resources recently published a Plan for Improvement of the Delta Levees (6). Although there are problems that need to be worked out this plan appears to hold promise for the future of the Delta if followed.

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<sup>1</sup>The presence of natural gas fields in the Delta also contributes to the fire hazard, as evidenced by the blowout in May, 1974 on Mc Donald Island.

<sup>2</sup>There are more than 1,000 miles of levees in the Delta.



*Chapter VIII*

**PLAN IMPLEMENTATION**





## PLAN IMPLEMENTATION

A Program for Plan Achievement will be developed by the Planning Commission as a separate document and submitted to the Board of Supervisors for adoption. The Program will be reviewed annually with a report presented to the Board by the Planning Commission. The report will evaluate the progress made in the Program during the year and recommend any changes in the Program that may be needed. Although specific plan implementation measures will not be proposed here, the policies of the plan do identify some specific steps to be taken towards plan achievement. In addition, public improvements necessary for implementation of the transportation plan are itemized in Chapter V.

In San Joaquin County, the following have been used the most frequently for plan implementation: the zoning ordinance; the subdivision ordinance; the California Land Conservation Act; public expenditures for land acquisition and development; inter-agency coordination; housing, building, and health codes; street and road improvement ordinance; specific plans for roadways; excavation ordinance. Other tools have been used less often or not at all, and many need to be explored further for determination of their value in the County.

Because of their particular importance and wide use, the zoning ordinance and the Land Conservation Act are discussed below.

### THE ZONING ORDINANCE

With the adoption of this element the zoning ordinance will be reviewed as to its consistency with the plan and will be revised as necessary. It is recognized that there is need to re-examine several of the zoning districts and, in light of the new plan, revise the text of the ordinance to more effectively implement the plan. This review of the ordinance is in progress.

At this time, the Zoning/General Plan Consistency Matrix will be used as an indication of whether or not a specific zoning district would be consistent with a given designation of the Land Use/Circulation Element Plan Map. Reclassifications of property must be consistent with the general plan. Those areas which presently have zones which will be inconsistent with the plan as revised will be rezoned as necessary to achieve consistency between the plan and the zoning. In some cases, substantial physical residential, commercial, or industrial development exists on individual parcels in zones which would not be consistent with the plan designation. These land uses, if legally established, will be permitted to continue with regulation and limitation on expansion, but the establishment of a district of such use would not be consistent with the plan.

### THE CALIFORNIA LAND CONSERVATION ACT

The California Land Conservation Act (see Agriculture section in Chapter IV) enables local jurisdictions to assess agricultural land on the basis of capacity of the land for production rather than on market value. The policies adopted

by the Board of Supervisors to implement the Act state that before an agricultural preserve is established prime agricultural land should be zoned EA-40 or GA-40<sup>1</sup> and non-prime agricultural land should be zoned EA-160 or GA-160. Lands in preserves which were established prior to the adoption of this provision, are to be rezoned. This needs to be done in order to implement the plan. The areas of preserves should be reviewed in terms of the revised plan.

An important part of plan implementation is the continual planning process, with monitoring of current trends and changes in plan assumptions and community desires. As new information becomes available, the plan can be further refined.

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<sup>1</sup>Exclusive Agriculture, 40 acre minimum parcel size or General Agriculture, 40 acre minimum parcel size.







## AREA PLANS

Each urban center and rural center has been considered individually as well as in a county-wide context. The centers have been grouped by Planning Areas, with population data given for each Planning Area.

This chapter includes 1) an explanation of the Area Plan Maps and 2) a discussion of each center.

For each center the following information is presented: public facilities and services, existing land use, major considerations in planning for the center, and a map showing the existing developed area and the planned growth areas. Wherever data is available, tables are included which quantify existing land use and planned land use areas and which compare the residential capacity of the plan with residential projections. Information is selected from the section on land use projections in Chapter IV and should be used with the qualifications noted in that chapter. Existing population and all projections are for selected statistical areas as indicated in Figure 9. In addition, analysis of each rural residential area is presented by Planning Area.

### EXPLANATION OF THE AREA PLAN MAPS

Area Plan Maps show land uses and circulation patterns for each center. These maps are itemized on the inside of the front cover and are available separately.

The land use designations are based on, and to be used in conjunction with, policies contained in the brochure entitled: San Joaquin County Policies for Development which is also a portion of the Land Use/Circulation Element.

The designations shown on the area maps are amplified below:

#### ●Residential

Rural Residential The density is less than one dwelling unit per two gross acres. These rural areas provide for large lot residential use with space for family food production or the pursuit of agricultural hobbies. No water or sewer systems are present and the supporting services typically found in urban residential areas are not generally available.

Suburban Density Permits 1 to 2 dwelling units per gross acre. Typically located on the fringe of urban centers, these areas provide for one-third to one-acre lots for single-family residential development. Both water and sewer systems must be present; however, other residential support services may be scarce and distant. Convenience centers which serve and complement the residential uses are appropriate in this category.

Low Density Permits 2 to 6 dwelling units per gross acre. These areas comprise the bulk of the urban centers and provide for single-family detached houses, duplexes, and occasional multiple family complexes when part of a planned unit development. Convenience or neighborhood shopping centers which serve and complement residential uses are appropriate within this category. In Rural Centers, this category accommodates all residential development, with the density dependent upon existing conditions.

Medium Density Permits 6 to 16 dwelling units per gross acre. These areas typically include duplexes, triplexes, fourplexes, garden apartments, and mobilehome parks, and are usually located in the older central portions of urban centers as well as along major collectors and arterials or near community activity centers.

High Density Permits 15 to 30 dwelling units per gross acre. Higher densities may be permitted in core areas of the regional center. These areas typically contain predominantly garden apartments or medium or high-rise apartment buildings, and are found near the central business districts of the regional and subregional centers as well as along major arterials or near major activity centers. Administrative and professional office areas are appropriate within this category.

#### ●Commercial

Retail Commercial In Urban Centers, these areas provide for several types of commercial activities, including regional and community shopping areas as well as the central business districts. Administrative and professional office areas are appropriate within this category. Neighborhood shopping centers are provided for within residential areas. In Rural Centers, this category accommodates other than retail commercial activities.

Commercial Service Provides for general retail and service areas as well as limited wholesaling activities within Urban Centers. This category recognizes most existing major commercial strips while promoting further development in compact areas along major arterials.

Highway Service This category provides for clusters of commercial development oriented almost exclusively for the needs of travelers on freeways. Areas are shown at selected interchanges.

#### ●Industrial

Limited Industrial These areas provide for those types of industrial activities which are most compatible with other urban land uses. They include restricted light industrial areas which are suitable for industrial parks meeting high performance standards, light industrial areas in which any adverse impacts are limited to the site, and certain wholesaling, warehousing, or distributive uses which can meet similar performance standards.



General Industrial These areas provide for those types of industrial activities which are least compatible with other urban land uses because of their operational characteristics or either require large amounts of land and need fringe locations. They include heavy industrial areas, open industrial areas, and those wholesaling, warehousing or distributive uses which have similar characteristics or requirements.

●Public and Quasi-Public

Public Utilities This category indicates those land areas planned for major urban support facilities, including water treatment plants, sewage treatment plants, and solid waste disposal facilities.

Transmission Corridors Indicates alignment of major pipelines and power transmission lines traversing the County.

Educational Facilities Indicates existing major private and public system facilities, as well as general locations for proposed facilities.

Elementary School

Junior High or Middle School

High School

College or University

Other Governmental and Institutional This category indicates the locations of a variety of activities including military installations, correctional institutions, fire stations, hospitals, civic centers, fairgrounds and major governmental buildings, as well as public transportation facilities.

Fire Station

●Open Space

Recreation These areas encompass those lands which have important recreational potential. It is intended that these areas be utilized through either public or private development. General locations are indicated for proposed facilities within public systems.

Neighborhood Park

Community Park

Regional Park

State Park

Cemetery This category reflects the value of cemeteries as open space. Areas contemplated for expansion are also indicated.

Urban Reserve This category recognizes principal growth trends of Urban Centers as previously indicated in prior General Plans. These areas act as a reserve for future urban development, however, no development is anticipated without the provision of municipal services. These areas are to be considered as agricultural areas until such time as the General Plan is amended.

Agriculture This category includes those areas where there are high quality soils and water is or expected to be available for irrigation, thus enabling prime land to remain in agricultural production. It also includes those foothill pasture areas which, while not considered prime agricultural soils, support livestock production and are intended to remain in agricultural use.

Conservation This category identifies those areas which are intended to remain in open space in order to conserve natural resources or to protect development from probable hazards. Included are flood plains, areas of substantial aquifer recharge, sand and gravel deposits, and wildlife habitats.

#### Water and Waterways

### ●Circulation

Freeway Includes legislative adopted route of proposed freeways. Normal width is 210'.

Arterial Includes expressways in Urban Centers. Normal width is 110'. Frontage roads may be desirable. Grade separations should be included in specific plans where feasible.

Major Collector Normal width is 84'. Grade separations are desirable.

Minor Collector Normal width is 60'.

Interchange (freeway-to-freeway) Provides for movement only between intersecting freeway or otherwise divided facilities, with no direct access to local roads.

Other Interchanges Provides for either complete or partial access to freeways from local roads.

Railroad Grade Separation Includes existing and proposed facilities.

Railroad

Port

Airport

# THE THORNTON AND SOUTH DELTA PLANNING AREAS

	POPULATION	
	1972	1995
THORNTON PLANNING AREA	2,308	2,404
SOUTH DELTA PLANNING AREA	3,270	3,502
Urban Portion		
Thornton (Intermediate Center)	1,008	1,141
Rural Portion	4,570	4,765

These two planning areas represent the largest portion of the California Delta within San Joaquin County. Agriculture is the primary land use with heavy recreational activity on, and along the waterways. Thornton is the only urban center; however, there are several crossroad and recreation-oriented developments scattered throughout the Delta.

The completion of I-5, the increase of water-oriented recreation areas, and the proposed construction of the Peripheral Canal are the most significant developments planned in these areas.

Urban development in the Delta is restricted particularly by probability of flooding and the unstable soils. The waterways are important for fish and wildlife habitat; therefore, they have been included in the conservation designation on the Plan Map. More detailed discussions of this unique area are in Chapters I, IV, and VII.



## The Intermediate Center of

### THORNTON

A County Service Area was recently approved with the intent of eventually dissolving the Utilities Maintenance District. The Service Area is authorized to provide lighting, water and sewage services. The Board of Supervisors is the governing body with the assistance of a community advisory group which is being formed. There is an active Chamber of Commerce.

#### Public Facilities and Services

A community water system (owned by the County Housing Authority) serves the public housing property. There are also two private systems serving a limited area. Outside of these areas individual wells are used. Sewage disposal is by septic tank; however, there is a system and plant serving the public housing. The plant ponds are to be moved and replaced by the State when I-5 is constructed. Septic tank failures and subsequent health hazards are increasing. The County has made application for a grant to construct a facility to serve the entire community. The Thornton Rural Fire District station is located in town, as is the New Hope Elementary School, and a branch library. Children attend high school in Galt.

#### Existing Land Use

Thornton's residential development consists primarily of single units with scattered duplexes in the public housing area. Neighborhood commercial services are located in town, with many buildings vacant. California Cannery and Growers' cannery facility is east of the railroad tracks, and provides regular and seasonal employment in the area.

#### Major Planning Considerations

- 1) Thornton is planned as an urban center because of the likelihood of improved and expanded water and sewer services with the formation of the County Service Area.
- 2) I-5 will pass to the west of Thornton, creating highway service potential, and will provide improved access to the entire area.
- 3) Construction of the proposed Peripheral Canal and the planned recreation sites could be expected to have a growth inducing effect on Thornton.

THORNTON

FIGURE 53a

EXISTING LAND USE ACREAGES - 1974  
(in net acres)

Residential	59
Commercial	3
Industrial	43
Recreation	0
Public/Quasi Public	18
Roads & Streets	31
TOTAL DEVELOPED	154
VACANT	72
AGRICULTURE	246
TOTAL 1995 PLAN AREA	472

FIGURE 53b

PLANNED LAND USE ACREAGES - 1995  
(in gross acres)

RESIDENTIAL	300
Rural	--
Suburban	95
Low	180
Medium	25
High <sup>1</sup>	--
COMMERCIAL	44
Retail	8
Commercial Service	13
Highway Service	23
INDUSTRIAL	117
Limited	7
General	110
RECREATION	5
EDUCATION	6
GOV'T/INSTITUTIONAL	--
TOTAL GROSS ACRES	472

<sup>1</sup>includes office areas

FIGURE 53c  
RESIDENTIAL CAPACITY VS. RESIDENTIAL PROJECTIONS

	Suburban* 1-2	Low* 2-6	Medium* 6-15	Total
Undeveloped Area <sup>1</sup> (gross acres)	69	113	5	
Vacant Parcels	2	12	1	
Additional Units Possible <sup>2</sup>	71-140	238-690	31-76	340-906 Total
Additional Units Projected <sup>3</sup>				60 Total

\*Residential Densities in General Plan to 1995 (in units per gross acre)

<sup>1</sup> Vacant or in agriculture

<sup>2</sup> in 1995 urbanized area

<sup>3</sup> for selected statistical areas

# LODI PLANNING AREA

	POPULATION	
	1972	1995
LODI PLANNING AREA	41,851	56,066
Urban Portion		
Lodi (Subregional Center)	32,484	46,400
Rural Portion	9,367	9,666
Acampo (Rural Center)		
Coopers Corner (Rural Center)		
Victor (Rural Center)		
Henderson Village (Rural Center)		

This area contains one urban center, Lodi, and four of the County's nine rural centers. Some of the County's (and the State's) most favorable agricultural growing conditions are found in the southern two-thirds of the area where grapes are the dominant crop. Agricultural land in the northern one-third is used for cattle grazing and some cropping. Outside of Lodi, wineries and other types of agricultural processing are the primary industrial activities. The Mokelumne River, extending the width of the area, is used for irrigation water and recreation.

Additional traffic on Highway 12 is expected with the completion of I-5 to that point.



## The Sub-Regional Center of

### LODI

Lodi was incorporated in 1906 with a council-manager form of local government. Woodbridge is an historical unincorporated community adjacent to the west of Lodi and has 6 non-agricultural special districts, the most influential being the sanitary district with a 5-person elected board.

#### Public Facilities and Services

Lodi has a complete range of urban services. Application has been made for monies for improvement of treatment and expansion of the City's White Slough Sewage Treatment Plant. Woodbridge has a sewage collection and treatment system. The district is seeking improvement of the existing plant to meet discharge requirements, rather than joining the Lodi system. The Sanitary District has consented to extend services north of the Mokelumne River to the Country Club Vista subdivision, whose package plant system ponds are no longer operable.

Water for Lodi's system is from several wells. Woodbridge has individual wells, many of which are reported in an unsafe condition. One subdivision in Woodbridge is served by a private water system and another has a maintenance district community system.

One of the two Woodbridge Fire District stations is located in the town, as is the Woodbridge School, a Lodi Unified School District middle school.

Lodi's drainage system is based on a series of basins used for parks, and is a major factor in timing of development. One subdivision in Woodbridge has a drainage system, while drainage of the remainder of the area is on a parcel-by-parcel basis.

#### Existing Land Use

Land use in Lodi is well-balanced, with most of the industries being agriculturally related. Except for Woodbridge, little urban development occurs outside the incorporated limits.

The winery is presently the primary industrial activity in Woodbridge; however, General Mills, and RCA Global although in Lodi, are located immediately south of Woodbridge. Woodbridge is primarily residential with an area of historical commercial buildings, many of which are in need of repair if their usage is to continue. The Woodbridge Golf and Country Club, and a unique restaurant, draw people from outside the community.

## Major Planning Considerations

- 1) Those areas shown for urban development in the Lodi Plan Map are based upon the City's General Plan. They reflect residential development phases 0, 1 and 2, as adopted by the City<sup>1</sup>, which should provide for projected growth to the year 2040. Those areas shown for industrial development reflect development phases adopted as part of the recent Industrial Area amendment.
- 2) The City does not plan on extending services north of the River; however, Woodbridge is contemplating sewerage lines to existing development on the north side.
- 3) It is reasonable to plan for the eventual annexation of Woodbridge to Lodi, since Woodbridge is bordering the city limits in some cases, and annexation of the school and neighboring development is being contemplated now. However, some residents of the community have voiced a desire to remain independent of the City and are seeking to meet their own service needs.
- 4) The area is surrounded by excellent agricultural land, most of which is planted in vineyards.

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<sup>1</sup>In one case a phase 3 development area has been included.

FIGURE 54b

PLANNED LAND USE ACREAGES - 1995  
(in gross acres)

RESIDENTIAL		3,281
Rural	--	
Suburban	44	
Low	2,470	
Medium	467	
High <sup>1</sup>	300	
COMMERCIAL		447
Retail	195	
Commercial Service	247	
Highway Service	5	
INDUSTRIAL		838
Limited	213	
General	625	
RECREATION		528
EDUCATION		315
GOV'T/INSTITUTIONAL		70
TOTAL GROSS ACRES		5,479

<sup>1</sup>includes office areas

FIGURE 54c

## RESIDENTIAL CAPACITY VS. RESIDENTIAL PROJECTIONS

	Suburban* 1-2	Low* 2-6	Medium* 6-15	Total
Undeveloped Area <sup>1</sup> (gross acres)	24	1,843	113	
Vacant Parcels <sup>4</sup>	16	89	9	
Additional Units Possible <sup>2</sup>	40-64	3,775- 11,147	687- 1,704	4,502-12,915
Additional Units Projected <sup>3</sup>				5,607

\*Residential Densities in General Plan to 1995 (in units per gross acre)

<sup>1</sup>vacant or in agriculture

<sup>2</sup>in 1995 urbanized area

<sup>3</sup>for selected statistical areas

<sup>4</sup>vacant parcels within incorporated areas not included



## The Rural Center of

### VICTOR

Victor has a recently approved County Service Area authorized to provide drainage, water and lighting services. There is also a waterworks district with an elected board, and a lighting district. There are a number of private community organizations.

#### Public Facilities and Services

A community water system is provided by the County Water Works District #2 which may also be dissolved in the future. Sewage disposal is by individual septic tank. Drainage is very poor and there is no community system at this time; however, the County Service Area is exploring the problem and is authorized to provide a solution. The Mokelumne Rural Fire District Station is located in town. The Lodi School District is considering a site north of town for construction of an elementary and possible middle school to replace Alpine School, now located south of Victor. The community desires to develop a park in conjunction with the school. Children attend high school in Lodi.

#### Existing Land Use

Residential development is single units on less than one acre parcels north and south of the commercial area along Route 12, which has services to meet the immediate needs of the area. Chemical storage, corporate yards and a winery are the primary industrial uses along the railroad track and highway.

#### Major Planning Considerations

- 1) Victor is being planned as a rural center because of its size, function, and lack of community sewerage system.
- 2) Drainage in town has been a problem; however, solutions are being explored.
- 3) Most of the recent residential development has been on parcels outside of the community of Victor, in the rural area.

VICTOR

FIGURE 55a

EXISTING LAND USE ACREAGES - 1974  
(in net acres)

Residential	14
Commercial	2
Industrial	13
Recreation	--
Public/Quasi Public	3
Roads & Streets	8
TOTAL DEVELOPED	<u>40</u>
VACANT	7
AGRICULTURE	11
TOTAL 1995 PLAN AREA	<u>58</u>

FIGURE 55b

PLANNED LAND USE ACREAGES - 1995  
(in gross acres)

RESIDENTIAL	
Rural Center	30
COMMERCIAL	
Rural Center	8
INDUSTRIAL	
Limited	20
General	--
RECREATION	--
EDUCATION	--
GOV'T/INSTITUTIONAL	--
TOTAL GROSS ACRES	<u>58</u>

## The Rural Center of

### ACAMPO

There is a Utilities Maintenance District and private community organizations.

#### Public Facilities and Services

Sewage disposal is by individual septic tank; however, there is a community water system with the water coming from the winery well. There is no community drainage system. Children attend Lodi Unified District elementary and middle school in Coopers Corner and high school in Lodi. The closest fire station is located in Woodbridge, about 2½ road miles to the southwest. There is a private community center and desire for a small park has been expressed. The Acampo Post Office serves a large rural area.

#### Existing Land Use

The small community is primarily residential in nature with a gas station as the primary commercial service at this time. The winery, along the railroad track, is the most prominent land use.

#### Major Planning Considerations

- 1) Acampo is being planned as a rural center because of the lack of services and the unlikelihood of obtaining them during the planning period.
- 2) The town is also surrounded by excellent agricultural land which is, for the most part, in permanent crops.
- 3) The community is bordered by the Southern Pacific railroad track, a major noise generator.

FIGURE 56a

EXISTING LAND USE ACREAGES - 1974  
(in net acres)

Residential	4
Commercial	2
Industrial	9
Recreation	1
Public/Quasi Public	1
Roads & Streets	5
TOTAL DEVELOPED	22
VACANT	3
AGRICULTURE	27
TOTAL 1995 PLAN AREA	52

FIGURE 56b

PLANNED LAND USE ACREAGES - 1995  
(in gross acres)

RESIDENTIAL	
Rural Center	30
COMMERCIAL	
Rural Center	2
INDUSTRIAL	
Limited	--
General	20
RECREATION	--
EDUCATION	--
GOV'T/INSTITUTIONAL	--
TOTAL GROSS ACRES	52



## The Rural Center of

### COOPERS CORNER

#### Public Facilities and Services

Uses in the community are served by individual water wells and septic tank system. There is no community drainage, except that provided by roadway borrow ditches. The town is within the Woodbridge Rural Fire District, with the closest station about 3 miles away in Woodbridge. A station is also located about 7 miles away, south of Lodi. The Liberty District Station is about 1½ miles to the northeast. There is an elementary and middle school in the community and children attend high school in Lodi.

#### Existing Land Use

The area is primarily single residential units on parcels of one acre or less, with small community service commercial establishments at the Acampo Road/99 interchange. There is no industry.

#### Major Planning Considerations

- 1) A General Plan Amendment in 1973 recognized Coopers Corner as a rural center. The designation is continued because of existing land uses; however, growth is limited by the lack of community services, the freeway to the west, and prime agricultural land in comparatively large parcels to the east, south and north.

FIGURE 57a	
EXISTING LAND USE ACREAGES - 1974 (in net acres)	
Residential	22
Commercial	2
Industrial	1
Recreation	--
Public/Quasi Public	11
Roads & Streets	9
TOTAL DEVELOPED	45
VACANT	2
AGRICULTURE	13
TOTAL 1995 PLAN AREA	60

FIGURE 57b	
PLANNED LAND USE ACREAGES - 1995 (in gross acres)	
RESIDENTIAL	
Rural Center	45
COMMERCIAL	
Rural Center	4
INDUSTRIAL	
Limited	--
General	--
RECREATION	--
EDUCATION	11
GOV'T/INSTITUTIONAL	--
TOTAL GROSS ACRES	60

## The Rural Center of

### HENDERSON VILLAGE

The only community organization is a Utilities Maintenance District maintaining a water system for Sunnyside Estates, the northeastern portion of the center.

#### Public Facilities and Services

A community water system serves Sunnyside Estates, a new subdivision. The remainder of the area has individual wells. All uses are on septic tanks and there is no community drainage system other than roadway borrow ditches, which have not been adequate. Expansion of the Sunnyside water system to serve the entire area has been discussed. A Woodbridge District fire station to the southeast about 2½ miles on Armstrong Road serves the community. Children attend Lodi Unified schools, with an elementary school in the community.

#### Existing Land Use

Lower Sacramento Road divides the residential development. Larger single residential unit lots (1/3 acre or more) occur in Sunnyside Estates, and along Harney Lane. Smaller lots (about 1/4 acre or less) are in the area on the west, south of Harney. A single neighborhood-type commercial use and small mobilehome park exist to the southeast.

#### Major Planning Considerations

- 1) It is assumed that there will be no additional community services during the planning period; however, expansion of the water system could alleviate some problems as additional area for effluent disposal leach fields is required.
- 2) The City of Lodi is not expected to grow out to Henderson Village until well after the planning period (about 2050).
- 3) Lower Sacramento Road is being planned as a County arterial. As such, improvement of the road will be necessary, probably to the east rather than west side, which will affect the future land use of the area.

# HENDERSON VILLAGE

FIGURE 58a

EXISTING LAND USE ACREAGES - 1974  
(in net acres)

Residential	33
Commercial	1
Industrial	--
Recreation	--
Public/Quasi Public	2
Roads & Streets	9
TOTAL DEVELOPED	45
VACANT	5
AGRICULTURE	8
TOTAL 1995 PLAN AREA	58

FIGURE 58b

PLANNED LAND USE ACREAGES - 1995  
(in gross acres)

RESIDENTIAL	
Rural Center	50
COMMERCIAL	
Rural Center	--
INDUSTRIAL	
Limited	--
General	--
RECREATION	--
EDUCATION	8
GOV'T/INSTITUTIONAL	--
TOTAL GROSS ACRES	58



## Rural Residential Areas

### COLLIERVILLE (Collier Road & Route 99)

#### Planning Considerations

- 1) Although shown on the General Plan to 1990 as an urban center, Collierville now is being planned as a rural residential area because there are no existing or planned urban services, and residents have expressed a desire not to seek services, as there is no need at this time.
- 2) Residential development is scattered and rural in nature, generally single units on one-half acre, or larger, lots. Residents desire that new development be maintained at this density, or even lower.
- 3) Commercial development is divided between that which is highway oriented and that serving the local area, and is located along Highway 99 at the Collier and Jahant Road interchanges. There is not post office or central commercial area with community-type services, except a small grovery store and barber shop.
- 4) The Forest Lake Rural Fire District station is located in the southern portion of the area. The Oak View Union Elementary School is located about 2 miles east of Collierville. Children attend high school in Galt in Sacramento County.
- 5) Physically the land is not flat, but rather sloping with low areas creating drainage problems. These problems are augmented by the comparatively tight soils. The soils of the area are poorer than in most parts of the County, but are irrigable and as such can be considered prime.
- 6) In November 1974, the Board of Supervisors adopted an amendment to the General Plan to 1990 which: a) resulted in the recent approval of a 24-lot subdivision with parcel sizes of three acres; and b) also recognized a proposed mobilehome park development west of Route 99 and north of Jahant Road approved in 1971. The latter property is shown on the General Plan to 1995 as Low Density Residential and any development will require drainage, water, and possibly sewer systems. If development of the area does occur, it will result in a greatly increased population, necessitating additional commercial development and public facilities and creating more employment opportunities, and in fact, may transform Collierville from a rural residential area into an urban center.
- 7) The airport south of Jahant Road at Route 99 may present a hazard to any development just north of Jahant Road.
- 8) SEE Figure 39 on page 106 for analysis of individual rural residential areas.

# THE LOCKEFORD-CLEMENTS PLANNING AREA

	POPULATION	
	1972	1995
LOCKEFORD-CLEMENTS PLANNING AREA	5,576	7,209
Urban Portion		
Lockeford (Intermediate Center)	1,165	1,826
Rural Portion		
Clements (Rural Center)	4,411	5,383

This is one of the largest planning areas and is mostly agricultural in nature, with grazing in the foothill areas and a variety of crops elsewhere depending upon the type of soil. There are recreation developments outside the County in conjunction with Camanche Reservoir and excavations along the Mokelumne and Calaveras Rivers. The commercial areas of Lockeford and Clements meet the immediate needs of the communities and surrounding rural area, as well as those of Highway 88 travelers and area recreationists. The Mokelumne River is used for recreation with most people entering the river at the County park at the base of Camanche Dam. Acquisition of property for access sites at river bridges is being pursued. The Mackville Road bridge is the most used for access along the River at the present time.

Highway 88 is not planned for improvement to freeway status nor is construction of an eastside freeway planned (as was indicated in the 1990 General Plan). Bypasses of Lockeford and Clements are also not planned.

Flooding or standing water as a result of poor local drainage and seasonal streams, occurs in some of the hilly areas, and in some areas along roadways where homes have been constructed without proper provisions for drainage.

## The Intermediate Center of

### LOCKEFORD

Lockeford has a Sanitary District and County waterworks district both with local boards. There is a Lockeford-Clements Chamber of Commerce, as well as other active community organizations. A Community Services District with a locally elected board is being proposed to consolidate services now provided by several districts.

#### Public Facilities and Services

Lockeford has community water, and sewage collection, treatment and disposal systems. Drainage is poor, and there is no community system. Children attend Lodi Unified Schools, with an elementary school located in town; and travel to Lodi for high school. The Mokelumne Fire District station is located in Victor about 4 miles to the west in Victor. The Clements district station is about 4 miles to the east, but does not serve Lockeford.

#### Existing Land Use

Residential types in Lockeford are primarily single units and with some multiple units, and several mobilehome parks. Commercial services along Route 88 meet the needs of the immediate and surrounding area, as well as highway travelers.

Antique and curio stores are found in some of the town's historic buildings, while one of the larger buildings is presently vacant. The grocery store will be moving from its existing store into a new building outside of the present downtown. Industrial uses are primarily agriculturally related. The Harmony Grove church and cemetery located west of town are a County historic park. A National Register designation has been requested on the Locke barn and home.

#### Major Planning Considerations

- 1) Lockeford has sewerage and water services, which can be expanded with new development. Expansion will be facilitated by the Community Services District.
- 2) A State highway serves as the town's main street. Although a bypass of the town is not planned; increased traffic to and from the recreation areas to the east can be expected. Traffic and roadway improvements are anticipated.
- 3) The town is an historical landmark and is itself a tourist attraction.
- 4) Growth to the north is limited by the bluff.
- 5) With the relocation of the grocery store and previous closure of the hardware store, the main part of the Community's commercial area will be to the south.



LOCKEFORD

FIGURE 59a

EXISTING LAND USE ACREAGES - 1974  
(in net acres)

Residential	95
Commercial	14
Industrial	53
Recreation	--
Public/Quasi Public	25
Roads & Streets	47
TOTAL DEVELOPED	233
VACANT	37
AGRICULTURE	592
TOTAL 1995 PLAN AREA	863

FIGURE 59b

PLANNED LAND USE ACREAGES - 1995  
(in gross acres)

RESIDENTIAL		623
Rural	--	
Suburban	190	
Low	397	
Medium	36	
High <sup>1</sup>	--	
COMMERCIAL		45
Retail	20	
Commercial Service	25	
Highway Service	--	
INDUSTRIAL		154
Limited	42	
General	112	
RECREATION		10
EDUCATION		11
GOV'T/INSTITUTIONAL		20
TOTAL GROSS ACRES		863

<sup>1</sup>includes office areas

FIGURE 59c

RESIDENTIAL CAPACITY VS. RESIDENTIAL PROJECTIONS

	Suburban* 1-2	Low* 2-6	Medium* 6-15	Total
Undeveloped Area <sup>1</sup> (gross acres)	179	256		
Vacant Parcels		112	5	
Additional Units Possible	179-358	624-1,648	5	808-2,011
Additional Units Projected				220

\*Residential Densities in General Plan to 1995 (in units per gross acre)

<sup>1</sup>vacant or in agriculture

<sup>2</sup>in 1995 urbanized area

<sup>3</sup>for selected statistical areas

## The Rural Center of

### CLEMENTS

There is a street lighting district and a number of private organizations serving the historical community and surrounding area.

#### Public Facilities and Services

Sewage disposal is by individual septic tanks and there is no community drainage system. There is a private water system serving approximately 50 connections. Children attend elementary school in Clements and Lockeford, and high school in Lodi. The Clements Rural Fire District Station is located in town. There is highway street lighting.

#### Existing Land Use

There are residential areas north and south of Highway 88, primarily single unit housing. Commercial uses along the highway include antique stores and services to meet the immediate needs of the surrounding area and highway travelers. Presently there is no large industry; however, there are warehouse buildings along the railroad tracks. The rodeo grounds to the east serve as a focal point for the area's equestrian and livestock related activities. Existing and proposed gravel excavation sites are along the Mokelumne river north and east of the town. Efforts are underway to maintain the historic cemetery to the north.

#### Major Planning Considerations

- 1) There are no public sewerage and drainage services and none are anticipated during the planning period. The water system is limited and in poor condition.
- 2) The community is close to Lockeford, an intermediate center which has public services and a wider range of commercial services, as well as some minor industrial development. The physical growth of Clements is limited by the foothills and bluff.
- 3) Most recent residential development has been rural in nature, occurring away from the community.

# CLEMENTS

FIGURE 60a

EXISTING LAND USE ACREAGES - 1974  
(in net acres)

Residential	12
Commercial	5
Industrial	1
Recreation	--
Public/Quasi Public	3
Roads & Streets	5
TOTAL DEVELOPED	<u>26</u>
VACANT	10
AGRICULTURE	97
TOTAL 1995 PLAN AREA	<u>133</u>

FIGURE 60b

PLANNED LAND USE ACREAGES - 1995  
(in gross acres)

RESIDENTIAL	
Rural Center	109
COMMERCIAL	
Rural Center	19
INDUSTRIAL	
Limited	10
General	--
RECREATION	--
EDUCATION	3
GOV'T/INSTITUTIONAL	--
TOTAL GROSS ACRES	<u>133</u>



## Rural Residential Areas

ELLIOTT

(Jack Tone Road and Jahant Road)

### Planning Considerations

- 1) The entire area is part of an old subdivision, and most of the existing development consists of residences on parcels of less than five acres in size.
- 2) Soils in the area are Class IV. Although not considered prime cultivable land, there are some vineyards in the area as well as irrigated pasture. Drainage is a problem.
- 3) Most of the area is within the Oak View School District; the remainder is within the Lodi Unified School District. The area is also divided between the Clements and Liberty fire districts, with both firehouses more than four miles distant.
- 4) SEE Figure 39 on page 106 for analysis of individual rural residential areas.

# THE LINDEN PLANNING AREA

	POPULATION	
	1972	1995
LINDEN PLANNING AREA	3,158	3,418
Urban Portion Linden (Intermediate Center)	905	1,151
Rural Portion Farmington (Rural Center)	2,253	2,267

Land in the Linden Planning Area is used for a variety of agricultural crops. Orchards, particularly cherry, are common in the Valley, with the foothills in the eastern part of the Planning Area being used for grazing.

Improvements are anticipated on State Route 26 and 4, which serve the area and provide access to foothill and mountain areas.

A pipeline is planned to carry water from Bellota on the Calaveras River to Stockton to meet the present and future needs of the City of Stockton.

## The Intermediate Center of

### LINDEN

Linden has a number of community organizations, including the chamber of commerce with an active local Development Commission and various committees.

#### Public Facilities and Services

Water is provided to a portion of the town by a private company, while the County Water District provides not water but sewage collection, treatment and disposal. The District is seeking to buy out the water company. Drainage is a problem and there is no community system. Children attend elementary and high school in Linden. The Linden Rural Fire District station is located in town. There is currently no park.

#### Existing Land Use

Residential development in the community is single units on urban sized lots. Newer homes on large lots (1 acre+) are located in the west part of town. For the most part, this area is developing without benefit of municipal services. The commercial area meets the needs of residents of the town and surrounding rural area, as well as highway travelers. The Farmer's Market is a community effort to improve local business. New businesses have recently located in some of the community's vacant stores as well as in newly constructed facilities. Industries are primarily agriculturally oriented.

#### Major Planning Considerations

- 1) It has been assumed that State Route 26 will not be improved to freeway status nor will a bypass be constructed during the planning period.
- 2) Linden will continue to serve population to the east in Calaveras County.
- 3) A precedent for commercial development south of the existing commercial area has been started with movement of the post office to that area.
- 4) It has been assumed that the community's water and sewerage systems will continue to expand to serve new development.
- 5) Drainage will be an inhibiting factor; however, a consolidated district could be empowered to deal with the problem.
- 6) The agricultural land surrounding Linden is largely planted in permanent tree crops, the area being famous for its cherries.
- 7) The community lacks multi-unit housing.
- 8) Organizations in Linden, particularly the Development Committee, have been seeking ways to encourage residential, commercial and industrial development of the Linden area.



LINDEN

FIGURE 61a

EXISTING LAND USE ACREAGES - 1974  
(in net acres)

Residential	47
Commercial	12
Industrial	11
Recreation	--
Public/Quasi Public	50
Roads & Streets	31
TOTAL DEVELOPED	151
VACANT	11
AGRICULTURE	125
TOTAL 1995 PLAN AREA	287

FIGURE 61b

PLANNED LAND USE ACREAGES - 1995  
(in gross acres)

RESIDENTIAL		168
Rural	--	
Suburban	43	
Low	105	
Medium	20	
High <sup>1</sup>	--	
COMMERCIAL		30
Retail	20	
Commercial Service	10	
Highway Service	--	
INDUSTRIAL		35
Limited	20	
General	15	
RECREATION		--
EDUCATION		50
GOV'T/INSTITUTIONAL		4
TOTAL GROSS ACRES		287

<sup>1</sup>includes office areas

FIGURE 61c

RESIDENTIAL CAPACITY VS. RESIDENTIAL PROJECTIONS

	Suburban* 1-2	Low* 2-6	Medium* 6-15	Total
Undeveloped Area <sup>1</sup> (gross acres)	37	66	11	
Vacant Parcels		19	2	
Additional Units Possible <sup>2</sup>	37-74	151-415	68-167	256-656
Additional Units Projected <sup>3</sup>				90

\*Residential Densities in General Plan to 1995 (in units per gross acre)

<sup>1</sup>vacant or in agriculture

<sup>2</sup>in 1995 urbanized area

<sup>3</sup>for selected statistical areas

## The Rural Center of

### FARMINGTON

Farmington has an active chamber of commerce and other organizations which serve the community and surrounding rural area.

#### Public Facilities and Services

Sewage disposal is by individual septic tank. There is a small private water system; however, most uses are on individual wells. The community normally has no serious drainage problems although there is no community drainage system. Children attend elementary school in town and high school in Escalon. The district fire station is also located in town. Interest in development of a park has been expressed.

#### Existing Land Use

Residential development is older single units on urban-sized lots with newer homes on larger lots in the surrounding rural area. Businesses meet the immediate needs of community and rural residents, as well as highway travelers. A large community cemetery is located south of town. There is no industrial development, however there are large vacant buildings along the railroad tracks.

#### Major Planning Considerations

- 1) Public community water, sewer and drainage services are not expected during the planning period.
- 2) That portion of the community east of the railroad tracks is subject to sheetflow flooding from an intermediate regional flood. Some overflow along the channels of Duck and Little Johns Creeks is anticipated with an intermediate regional flood.

FIGURE 62a

EXISTING LAND USE ACREAGES - 1974  
(in net acres)

Residential	12
Commercial	1
Industrial	--
Recreation	--
Public/Quasi Public	14
Roads & Streets	7
TOTAL DEVELOPED	34
VACANT	9
AGRICULTURE	10
TOTAL 1995 PLAN AREA	53

FIGURE 62b

PLANNED LAND USE ACREAGES - 1995  
(in gross acres)

RESIDENTIAL	
Rural Center	35
COMMERCIAL	
Rural Center	5
INDUSTRIAL	
Limited	--
General	--
RECREATION	--
EDUCATION	7
GOV'T/INSTITUTIONAL	6
TOTAL GROSS ACRES	53

## Rural Residential Areas

### PETERS

(Copperopolis Road and Fine Road)

#### Planning Considerations

- 1) The area includes the old townsite of Peters along the Southern Pacific Railroad tracks as well as subsequent land divisions to the south.
- 2) Soils in the immediate area are Class IV, while the valley floor gives way to rolling hills to the east.
- 3) SEE Figure 30 on page 106 for analysis of individual rural residential areas.



# THE STOCKTON PLANNING AREA

	POPULATION	
	1972	1995
STOCKTON PLANNING AREA	184,567	248,056
Urban Portion	174,699	233,294
Stockton (Regional Center)	172,341	230,393
French Camp (Intermediate Center)	2,358	2,901
Rural Portion	9,868	14,762

Stockton, the regional center of the County, dominates the Stockton Planning Area. About 60% of the County's population is located within the city or on its unincorporated fringes. Directly to the south of the city lies French Camp and to the northeast Morada. The Delta lies immediately to the west. Scattered residential development and small farms occur in the eastern portion of the Planning Area.

## The Regional Center of

### STOCKTON

Stockton is an incorporated charter city with a council-manager form of local government. The City in its role as a regional center and County seat, serves as the cultural, commercial, governmental, and financial center for the County, as well as for some areas outside the County. The City has a large unincorporated fringe, with numerous special districts.

#### Public Facilities and Services

Land uses in the incorporated area of the City have a complete range of urban services available.

Urban services are not consistently available in the unincorporated areas of Metropolitan Stockton. Sewage collection and treatment is provided to only portions of unincorporated north, west, and east Stockton. Many land uses are continuing on septic tanks because public services are not immediately available or the uses were not connected at the time the system was installed. Community drainage in these areas is also provided by numerous special districts; however, there are a number of unrelated systems and many parcels are not served at all.

Sewage disposal in south and southeast Stockton and most of the unincorporated east side, is by individual septic tank. Most of the lots in these areas are urban-sized lots. Although lots east of State Route 99 are generally larger, most have individual wells in addition to septic tanks. Package plants (see page 158 ) are also used to serve individual establishments and mobilehome parks in unsewered areas. Nearly all of Metropolitan Stockton is currently served or capable of being served by one of three community water systems.

Several school districts serve the metropolitan area. The boundaries of Stockton Unified, Lincoln, and Lodi Unified School Districts are irregular in the North Stockton area.

The incorporated area of Stockton is served by a highly rated fire department while the unincorporated areas are served by six fire district departments, all with stations generally located near the most populous areas. Police service is provided in the unincorporated metropolitan areas by the County Sheriff while the City Police Department serves the incorporated area.

#### Existing Land Use

Stockton has a variety of residential, commercial and industrial activities commensurate with its regional function. Most governmental and financial offices are located downtown, a large part of which is being redeveloped. Much of the city's retail commercial activity is now in the north, along Pacific Avenue.

The Port and County-owned Stockton Metropolitan Airport are two of Stockton's most important land uses. The industrial development adjacent to each is being pursued. The Stockton Deepwater Shipping Channel and other waterways in the urban area give Stockton unique development potential. Stockton also serves as a supply center for the surrounding agricultural area.

### Major Planning Considerations

- 1) Those areas shown for urban development in the Stockton Area Plan Map are based upon the Stockton City General Plan and the policies of the Stockton City Council, the most recent of which states that Bear Creek is appropriate for a northern limit of development during the planning period.
- 2) The Council also has a policy of extending urban services to unincorporated areas if paid for by the developer or persons whose property is to be served.
- 3) Major recent residential growth has been to the north where existing development for the most part, has urban services.
- 4) The extension of urban services will be difficult in partially developed areas. Lack of urban services in these areas has retarded the complete and most efficient utilization of the land. In many cases annexation has been avoided, and does not seem likely in the future. Provision of services in these areas remain an unresolved issue, requiring further study.
- 5) Rehabilitation and redevelopment programs have occurred in the center and southeastern portions of the city. The County has prepared a program designating several areas for rehabilitation programs, but currently funds are not available for implementation.
- 6) At the present time, it is undetermined when construction of the crosstown freeway will be completed; however, right-of-way has been purchased and is partially cleared; completion to Route 99 during the planning period is anticipated. Southside and northside cross-town freeways are not planned for construction.
- 7) The March Lane extension to Route 99 will carry a large volume of the cross traffic north of the Calaveras River.
- 8) An improved access to Stockton Metropolitan Airport is needed from Interstate 5 and is to be studied by COG next year. A connection in this area between I-5 and Route 99 would also improve automobile and truck circulation in Metropolitan Stockton.
- 9) The noise problems with the airport and surrounding residential areas are discussed in the section on aviation in Chapter V.
- 10) The school district boundaries and their impact on land use are discussed in the section on schools in Chapter IV.
- 11) Redevelopment is presently occurring along the Stockton Channel. Improved utilization of this waterway, as well as other, should continue throughout the planning period.
- 12) Construction of the proposed Peripheral Canal Project would provide additional nearby recreational opportunities.
- 13) Lack of industrial land and uses in North Stockton necessitates commuting between the new residential areas and employment centers. Conversely, there is little area for residential expansion on the south side of Stockton.
- 14) Available flood information indicates a few areas east of Route 99 will be flooded during an intermediate regional flood. Further flood information for the area west of Route 99 will be available during the next year.
- 15) Boggs Tract, partly in the City and partly in the County, continues to be shown on the Plan Map as a residential area. Although surrounded by either freeways or industrial uses, the area is predominately residential; however, there are numerous vacant parcels. The Port is immediately to the west and the Port District has a policy to acquire land in Boggs Tract as it becomes available. It is important that the residents receive from both City and County governments a firm indication of the area's future.



STOCKTON

FIGURE 63b

PLANNED LAND USE ACREAGES - 1995  
(in gross acres)

RESIDENTIAL		16,754
Rural	--	
Suburban	935	
Low	13,885	
Medium	635	
High <sup>1</sup>	1,299	
COMMERCIAL		2,039
Retail	879	
Commercial Service	940	
Highway Service	220	
INDUSTRIAL		9,863
Limited	5,853	
General	4,010	
RECREATION		1,675
EDUCATION		920
GOV'T/INSTITUTIONAL		6,120
TOTAL GROSS ACRES		<u>37,371</u>
<sup>1</sup> includes office areas		

## The Intermediate Center of

### FRENCH CAMP

Although still unincorporated, this community immediately to the south of Stockton is the site of the first European settlement in the County. It has a local chamber of commerce.

#### Public Facilities and Services

There are no public water or sewer systems. The County Hospital complex to the west is served by a small sewage treatment plant. There are two fire stations serving the French Camp-McKinley Rural Fire District. The entire community is within the Manteca Unified School District. There is a local elementary school, while secondary students go to East Union High School in Manteca. There are no parks and library service is provided by bookmobiles.

#### Existing Land Use

Housing consists mainly of single units which are located in the vicinity of the old townsite. There is commercial development scattered along El Dorado Street and clustered near the center of the old townsite. Several industrial uses are located along the Southern Pacific Railroad tracks. The San Joaquin County General Hospital and Jail complex are to the west across Interstate Route 5, as are housing units owned by the Housing Authority.

#### Major Planning Considerations

- 1) Many of the developed lots in the community are too small to adequately accommodate both individual septic tanks and wells. In addition there are problems with saline intrusion in the ground water. Due in large part to problems with contamination of wells, plans are presently underway to serve French Camp from a water main which would be extended to the County Hospital. There are no studies underway concerning extension of sewer service to the entire area; however, there may be a need in the future to serve the County Hospital, and there could be requests to serve individual projects.
- 2) Residents of the community desire to maintain French Camp's identity by remaining separate from Stockton. French Camp Slough has served as a physical divider to some extent. Although urban services, if they are to become available in French Camp, will have to be extended from Stockton, political annexation has historically been opposed.
- 3) Much of the community is located in a high noise impact area. Critical noise routes include Interstate Route 5, El Dorado Street, the Southern Pacific tracks, and the Western Pacific Railroad tracks. The presence of these same routes in turn accounts for the relatively large amount of land shown for future commercial and industrial development.

# FRENCH CAMP

FIGURE 64a

EXISTING LAND USE ACREAGES - 1974  
(in net acres)

Residential	101
Commercial	13
Industrial	66
Recreation	--
Public/Quasi Public <sup>1</sup>	130
Roads & Streets	106
TOTAL DEVELOPED	416
VACANT	233
AGRICULTURE	607
TOTAL 1995 PLAN AREA	1,256

<sup>1</sup>includes those uses  
west of I-5

FIGURE 64b

PLANNED LAND USE ACREAGES - 1995  
(in gross acres)

RESIDENTIAL		140
Rural	--	
Suburban	0	
Low	140	
Medium	0	
High <sup>1</sup>	--	
COMMERCIAL		375
Retail	10	
Commercial Service	230	
Highway Service	135	
INDUSTRIAL		359
Limited	244	
General	115	
RECREATION		0
EDUCATION		7
GOV'T/INSTITUTIONAL		375
TOTAL GROSS ACRES		1,256

<sup>1</sup>includes office areas

FIGURE 64c

RESIDENTIAL CAPACITY VS. RESIDENTIAL PROJECTIONS

	Suburban* 1-2	Low* 2-6	Medium* 6-15	Total
Undeveloped Area <sup>1</sup> (gross acres)		65		
Vacant Parcels		16		
Additional Units Possible <sup>2</sup>		146-406		146-406
Additional Units Projected <sup>3</sup>				218

\*Residential Densities in General Plan to 1995 (in units per gross acre)

<sup>1</sup>vacant or in agriculture

<sup>2</sup>in 1995 urbanized area

<sup>3</sup>for selected statistical areas



## Rural Residential Areas

MORADA  
(Morada Lane and Route 99)

### Planning Considerations

- 1) Although previously shown on the General Plan to 1990 for eventual urban development as Stockton grew northward, Morada is now being planned as a rural residential area in light of the number of residents of this area who have expressed a desire that the area remain rural in character. It is felt that the installation of services would make it possible for the area to become more intensely developed.
- 2) Single units on large lots make up most of the residential development in Morada, although there are also mobilehome parks. Commercial uses mainly serve the neighborhood. Much of the area was originally in orchards, the remnants of which provide an attractive and desirable setting for residential development. There have been relatively few subdivisions with parcels being created primarily by division of land.
- 3) Presently ten utilities maintenance districts serve the Morada area, and two more are proposed. Water systems and street lighting to very small areas are the primary services provided by these districts. There is no community-wide water system, with many land uses on individual wells. Other than package plants serving existing mobilehome parks, all sewage disposal is by individual septic tanks. Package plant systems are being proposed for at least two approved developments. There is no community sewerage collection and treatment system nor are there any plans other than those set forth in the Stockton Sewerage Study. Projections in this study were too optimistic and service to this area from the City of Stockton is now planned to occur well after the year 2000. Meantime, septic system failures in the area continue to occur; the situation being further complicated by the lack of adequate unbuilt area on existing parcels for replacement of the leach lines. Drainage is also a problem, with no community-wide system. Some individual developments have drainage systems; however, it may be difficult to incorporate them into a total system in the future.
- 4) Children attend Lodi Unified School District schools, with an elementary school and a middle school located in the community. The two stations of the Waterloo-Morada Fire District are located on the fringe of the community.
- 5) SEE Figure 39 on page 106 for analysis of individual rural residential areas.

AVALON  
(White Lane and Route 26)

Planning Considerations

- 1) This area includes an old subdivision as well as scattered residences along White Lane on parcels of varying sizes.
- 2) The area lies within the Linden Unified School District and the Waterloo-Morada Fire District.
- 3) SEE Figure 39 on page 106 for analysis of individual rural residential areas.

GLENWOOD  
(Alpine Road and Route 26)

Planning Considerations

- 1) This area includes a concentration of homesites in the vicinity of Glenwood elementary school.
- 2) The area lies within the Linden Unified School District and the Waterloo-Morada Fire District.
- 3) SEE Figure 39 on page 106 for analysis of individual rural residential areas.

NOBLE ACRES  
(Copperopolis Road and Tulsa Avenue)

Planning Considerations

- 1) This area includes an old subdivision as well as larger parcels in the northern portion south of the railroad tracks.
- 2) The area lies within the Linden Unified School District and the East Side Fire District.
- 3) SEE Figure 39 on page 106 for analysis of individual rural residential areas.

WATTERS  
(Watters Road and Priest Road)

Planning Considerations

- 1) This area includes a relatively recent subdivision as well as residences clustered along several roads in an older subdivision.
- 2) The area, although in close proximity to French Camp and Sharpe Army Depot, is distinctly separate and residents desire to maintain the rural character.
- 3) The area lies within the Manteca Unified School District and the French Camp-McKinley Fire District.
- 4) SEE Figure 39 on page 106 for analysis of individual rural residential areas.

# THE ESCALON PLANNING AREA

## POPULATION

	1972	1995
ESCALON PLANNING AREA	7,247	9,418
Urban Portion		
Escalon (Intermediate Center)	3,120	4,977
Rural Portion	4,127	4,441

A variety of permanent and annual crops are grown in the Escalon Planning Area. Excavation of sand and gravel resources occurs on the Stanislaus River, which borders the planning area to the south. The Stanislaus River is also important for its habitat, recreation potential and water supply.

One of the most important considerations in the area is the proposed construction of State Route 120 freeway, to occur sometime during the planning period. The highway is used for recreational travel between the Bay Area and the Sierra Nevada. The unconstrained transportation plan (see Chapter V ) indicates this route as a freeway.



## The Intermediate Center of

### ESCALON

Escalon has a council-administrator type of local government. The community also has an active chamber of commerce and other community organizations.

#### Public Facilities and Services

The City provides a complete range of urban services. Fire protection for a portion of the incorporated area is provided by the Escalon Fire Protection District, while the remainder of the City is within the Escalon Rural Fire District. Children attend school in the community. There is also a library in the city.

#### Existing Land Use

Escalon is a well balanced community with commercial services to meet the convenience and some selective needs of local and rural residents. Highway oriented services are also available along existing State Route 120, and are planned for location at the Route 120 freeway and Escalon-Bellota Road. Industrial uses are primarily agriculturally related.

#### Planning Considerations

- 1) The Escalon City General Plan and the policies of the Escalon City Council were used as a basis for the Escalon Plan Map.
- 2) Escalon is presently a comparatively compact community, lacking fringe development in the unincorporated area.
- 3) Because of its location, Escalon has strong commercial ties with Modesto in Stanislaus County.

# ESCALON

FIGURE 65 b

## PLANNED LAND USE ACREAGES - 1995 (in gross acres)

RESIDENTIAL		655
Rural	--	
Suburban	--	
Low	530	
Medium	125	
High <sup>1</sup>	--	
COMMERCIAL		110
Retail	35	
Commercial Service	60	
Highway Service	15	
INDUSTRIAL		240
Limited	85	
General	155	
RECREATION		45
EDUCATION		70
GOV'T/INSTITUTIONAL		35
TOTAL GROSS ACRES		1,155

<sup>1</sup>includes office areas

FIGURE 65 c

## RESIDENTIAL CAPACITY VS. RESIDENTIAL PROJECTIONS

	Suburban* 1-2	Low* 2-6	Medium* 6-15	Total
Undeveloped Area <sup>1</sup> (gross acres)		349	35	
Vacant Parcels <sup>4</sup>				
Additional Units Possible <sup>2</sup>		698- 2,094	210-525	908-2,619
Additional Units Projected <sup>3</sup>				729

\*Residential Densities in General Plan to 1995 (in units per gross acre)

<sup>1</sup>vacant or in agriculture

<sup>2</sup>in 1995 urbanized area

<sup>3</sup>for selected statistical areas

<sup>4</sup>vacant parcels within incorporated areas not included

# THE RIPON PLANNING AREA

	POPULATION	
	1972	1995
RIPON PLANNING AREA	5,531	7,224
Urban Portion		
Ripon (Intermediate Center)	3,158	4,696
Rural Portion		
Simms Station (Rural Center)	2,373	2,528

A variety of permanent and annual crops are grown in the Ripon Area, which is particularly noted for almonds. Eggs and other dairy products are also important.

State Route 120 freeway through this planning area is expected to have little effect on adjacent land uses. Highway 99 also serves the planning area.

The Stanislaus River is an important planning consideration. The County's only State park at present, Caswell Memorial, is located on the river in the Ripon Planning Area, and represents the major camping facility now available in the County.

## The Intermediate Center of

### RIPON

#### Community Organization

Ripon has a council-administrator type of government. The City also has an active Chamber of Commerce and other community organizations.

#### Public Facilities and Services

The City provides a complete range of urban services. Fire protection is provided by a consolidated fire district. Children attend elementary and high school in the community. The community has a branch library and community center. Hospital facilities serving the City are located in Modesto, Manteca or French Camp.

#### Existing Land Use

Ripon is a well balanced city with commercial services to meet the immediate and some long range needs of local and rural residents. Highway oriented services are also available along State Route 99 in Ripon. The City has a number of large industrial land uses.

#### Planning Considerations

- 1) The City of Ripon General Plan was used as a basis for the Ripon Plan Map.
- 2) The Army Corps of Engineers, as part of the New Melones Project, is planning a regional park area on the Stanislaus River, adjacent to Ripon.
- 3) The City of Ripon is physically divided by Highway 99; however, it has had little effect on the integrated development of the community. It is planned that the community will grow on both sides of the freeway.
- 4) Because of its location next to the County border, Ripon has close ties with Modesto and other parts of Stanislaus County.



RIPON

FIGURE 66b

PLANNED LAND USE ACREAGES - 1995  
(in gross acres)

RESIDENTIAL		839
Rural	--	
Suburban	--	
Low	764	
Medium	75	
High <sup>1</sup>	--	
COMMERCIAL		115
Retail	30	
Commercial Service	65	
Highway Service	20	
INDUSTRIAL		390
Limited	175	
General	215	
RECREATION		204
EDUCATION		100
GOV'T/INSTITUTIONAL		65
TOTAL GROSS ACRES		<u>1,713</u>

<sup>1</sup>includes office areas

## The Rural Center of

### SIMMS STATION

#### Public Facilities and Services

Water supply and sewage disposal are by private wells and septic tanks, respectively. Children attend school in Ripon. The area is served by the Ripon Consolidated Fire District, which has a station in the community.

#### Existing Land Use

The one neighborhood-highway service type commercial use is surrounded by single-family residences. There are vacant warehouses along the railroad. A very significant land use is the winery and tasting room west of the community.

#### Planning Considerations

- 1) A need or desire for services has not been expressed by residents of the area.
- 2) A decrease in highway traffic through the town will occur when the Highway 120 freeway is constructed to the south, some time during the planning period.

FIGURE 67a

EXISTING LAND USE ACREAGES - 1974  
(in net acres)

Residential	10
Commercial	1
Industrial	2
Recreation	--
Public/Quasi Public	1
Roads & Streets	3
TOTAL DEVELOPED	17
VACANT	2
AGRICULTURE	13
TOTAL 1995 PLAN AREA	32

FIGURE 67b

PLANNED LAND USE ACREAGES - 1995  
(in gross acres)

RESIDENTIAL	
Rural Center	25
COMMERCIAL	
Rural Center	2
INDUSTRIAL	
Limited	5
General	--
RECREATION	--
EDUCATION	--
GOV'T/INSTITUTIONAL	--
TOTAL GROSS ACRES	32

# THE MANTECA PLANNING AREA

	POPULATION	
	1972	1995
MANTECA PLANNING AREA	28,260	42,966
Urban Portion		
Manteca (Subregional Center)	19,397	32,269
Lathrop (Intermediate Center)	2,712	3,672
Rural Portion	6,151	7,025

The planning area, although primarily agricultural in terms of land use, is the location of substantial industrial development and employment. The major attraction is the highway and railroad circulation patterns which make the area a crossroads in the valley, and features two major north-south highways intersecting a State east-west route. Recreation potential is provided by the Stanislaus River on the south and San Joaquin River on the west. Proximity to Stockton accounts for some of the imbalance in living and working opportunities within the urban centers, although if Manteca and Lathrop are considered together, there is a functional balance between industrial and residential land uses.

## The Subregional Center of

### MANTECA

The City of Manteca has a Council-Manager form of government. There are numerous community organizations, including an active chamber of commerce.

#### Public Facilities and Services

Municipal services provided include water, sewer, drainage, police, fire, parks and recreation facilities. A branch library is located here. The city is in the Manteca Unified School District and is the location for both of the district high schools.

#### Existing Land Use

Residential development is primarily single-unit housing, although the number of multiple-units is increasing at a substantial pace. Commercial development is principally located along Yosemite Avenue (Route 120) and North Main Street.

Industrial development is concentrated in the southeast quadrant of the city.

#### Major Planning Considerations

- 1) The plan proposal is based on the adopted City of Manteca General Plan.
- 2) It is assumed that Route 120 will be constructed to its ultimate design concept, during the planning period.
- 3) It is assumed that property owned by San Joaquin Delta College will not be developed as a campus during the planning period.



MANTECA

FIGURE 68b

PLANNED LAND USE ACREAGES - 1995  
(in gross acres)

RESIDENTIAL		4,109
Rural	--	
Suburban	791	
Low	2,594	
Medium	460	
High <sup>1</sup>	264	
COMMERCIAL		520
Retail	284	
Commercial Service	181	
Highway Service	55	
INDUSTRIAL		555
Limited	300	
General	255	
RECREATION		311
EDUCATION		194
GOV'T/INSTITUTIONAL		55
TOTAL GROSS ACRES		5,744

<sup>1</sup>includes office areas

FIGURE 68c

RESIDENTIAL CAPACITY VS. RESIDENTIAL PROJECTIONS

	Suburban* 1-2	Low* 2-6	Medium* 6-15	Total
Undeveloped Area <sup>1</sup> (gross acres)	611	1,650	140	
Vacant Parcels <sup>2</sup>	26	220	98	
Additional Units Possible <sup>3</sup>	637-1,248	3,520- 10,120	938- 2,198	5,095-13,566
Additional Units Projected <sup>4</sup>				4,839

\*Residential Densities in General Plan to 1995 (in units per gross acre)

<sup>1</sup> vacant or in agriculture

<sup>2</sup> vacant parcels within incorporated areas not included

<sup>3</sup> in 1995 urbanized area

<sup>4</sup> for selected statistical areas

## The Intermediate Center of

### LATHROP

Lathrop is an unincorporated community located west of Manteca east of Interstate 5. The Lathrop County Water District is governed by a local board. There is an active chamber of commerce.

#### Public Facilities and Services

The Lathrop County Water District includes most of the developed area. There is no sewer system, although a small treatment plant serves Lathrop Acres Maintenance District. Manteca-Lathrop Rural Fire District has built a new fire station in the community. The elementary school is part of the Manteca Unified School District with secondary students going to East Union High School in Manteca. A park and community center are administered through County Service Area #4.

#### Existing Land Use

Residential development consists primarily of single unit housing which is concentrated in three areas: the old townsite, Lathrop Acres to the north and newer subdivisions to the south. Several mobilehome parks are nearer Route 5. Commercial development is limited to neighborhood uses clustered in the old townsite. Industrial land uses almost surround the community, with heavy manufacturing to the south, other industrial development to the east across the Southern Pacific Railroad tracks, and the vast warehousing facilities of Sharpe Army Depot to the northeast.

#### Major Planning Considerations

- 1) The Lathrop County Water District is authorized to provide sewer service and has already negotiated with the City of Manteca for capacity in its treatment plant; however, insufficient funding has precluded extension of an interceptor line and the development of a collector system.
- 2) Based upon projected increases in population, no land west of I-5 will be required for urban development within the planning period.
- 3) A major amendment of the General Plan to 1990 for the Lathrop area adopted in 1973 shifted the community commercial area from Seventh Street to the vicinity of I-5 and Lathrop Road.
- 4) The large amount of land designated for industrial uses is due in part to existing ownership and zoning and circulation patterns, and is not necessarily indicative of either the desires of this growth-minded community or the employment projections for the area.
- 5) It is assumed that Sharpe Army Depot will maintain its basic functions, although at somewhat reduced levels of employment.
- 6) Both Lathrop Road and Louise Avenue are planned as major collectors between I-5 and State Route 99. A specific plan has been adopted for Lathrop Road and one is in preparation for Louise Avenue.
- 7) More land is indicated for residential development than will be needed during the planning period. The area shown for development is simply a logical extension to existing boundaries and a filling-in of vacant areas. Much of this land will probably be vacant in 1995.

LATHROP

FIGURE 69a

EXISTING LAND USE ACREAGES - 1974  
(in net acres)

Residential	306
Commercial	7
Industrial	222
Recreation	8
Public/Quasi Public	844
Roads & Streets	178
TOTAL DEVELOPED	1,565
VACANT <sup>1</sup>	230
AGRICULTURE	2,270
TOTAL 1995 PLAN AREA	4,065

FIGURE 69b

PLANNED LAND USE ACREAGES - 1995  
(in gross acres)

RESIDENTIAL		570
Rural	--	
Suburban	--	
Low	496	
Medium	74	
High <sup>1</sup>	--	
COMMERCIAL		160
Retail	40	
Commercial Service	100	
Highway Service	20	
INDUSTRIAL		2,637
Limited	260	
General	2,377	
RECREATION		8
EDUCATION		15
GOV'T/INSTITUTIONAL		675
TOTAL GROSS ACRES		4,065

<sup>1</sup>includes office areas

FIGURE 69c

RESIDENTIAL CAPACITY VS. RESIDENTIAL PROJECTIONS

	Suburban* 1-2	Low* 2-6	Medium* 6-15	Total
Undeveloped Area <sup>1</sup> (gross acres)		216	31	
Vacant Parcels		71	8	
Additional Units Possible		503-1,367	194-473	697-1,840
Additional Units Projected				270

\*Residential Densities in General Plan to 1995 (in units per gross acre)

<sup>1</sup>vacant or in agriculture

# THE TRACY PLANNING AREA

	POPULATION	
	1972	1995
TRACY PLANNING AREA	23,079	37,371
Urban Portion		
Tracy (Subregional Center)	17,737	30,554
Rural Portion		
Banta (Rural Center)	5,342	6,817
Vernalis (Rural Center)		

The geography of the area consists of the Diablo Range and grazing foothills in the southwest portion, changing into gently sloping prime agricultural land over the remainder, extending to the San Joaquin River on the east and the Delta on the north. Two major aqueducts traverse the area transporting water from the Delta to the southern Central Valley and points beyond. Altamont Pass has made the area a crossroads for transportation routes connecting the Bay Area with Los Angeles and Sacramento and the Sierra. The attraction of the Tracy area is due largely to the triangular junction of Interstate Route 5, 205 and 580. Recreation potential is afforded by the Delta and the foothills.



## The Subregional Center of

### TRACY

The City of Tracy has a council-manager form of government. The Chamber of Commerce and many other organizations are active in the community.

#### Public Facilities and Services

Municipal services include water, sewer, drainage, police, fire, parks and recreation facilities. There is a branch library. The local elementary school district, together with seven other rural districts, supports a joint union high school in Tracy.

#### Existing Land Use

In addition to downtown Tracy, commercial development is concentrated along Eleventh Street (formerly Highway 50) with newer areas scattered along Grant Line Road. Residential development is comprised mostly of single-unit housing, however, there is increased activity in multiple-unit housing. Industrial uses are located on the north, east, and south edges of the city.

#### Major Planning Considerations

- 1) The plan proposal has been reviewed by the City, which is in the process of revising its current General Plan.
- 2) It is assumed that completion of the new sewage treatment plant will remove existing constraints on additional development in the community.
- 3) It is assumed that Tracy and the surrounding rural area will attract the major share of residential growth expected to "spillover" from the Bay Area.
- 4) The City is now embarking upon a redevelopment plan for the downtown area which will enhance the community's function as a commercial center for the entire planning area.

TRACY

FIGURE 70b

PLANNED LAND USE ACREAGES - 1995  
(in gross acres)

RESIDENTIAL		3,361
Rural	--	
Suburban	--	
Low	2,647	
Medium	489	
High <sup>1</sup>	225	
COMMERCIAL		316
Retail	115	
Commercial Service	136	
Highway Service	65	
INDUSTRIAL		1,657
Limited	941	
General	716	
RECREATION		50
EDUCATION		263
GOV'T/INSTITUTIONAL		1,061
TOTAL GROSS ACRES		6,708
<sup>1</sup> includes office areas		

FIGURE 70c

RESIDENTIAL CAPACITY VS. RESIDENTIAL PROJECTIONS

	Suburban* 1-2	Low* 2-6	Medium* 6-15	Total
Undeveloped Area <sup>1</sup> (gross acres)		1,507	319	
Vacant Parcels <sup>2</sup>				
Additional Units Possible <sup>3</sup>		3,014- 9,042	1,914- 4,785	4,928-13,827
Additional Units Projected <sup>4</sup>				5,156

\*Residential Densities in General Plan to 1995 (in units per gross acre)

<sup>1</sup>vacant or in agriculture

<sup>2</sup>vacant parcels within incorporated areas not included

<sup>3</sup>in 1995 urbanized area

<sup>4</sup>for selected statistical areas

## The Rural Center of

### BANTA

Banta is a small unincorporated agricultural community east of Tracy. There is no locally-controlled governmental board or agency.

#### Public Facilities and Services

There are no public water or sewer systems. The community is served by the main fire station in the Tracy Rural Fire District. The entire Banta School District is served by the elementary school.

#### Existing Land Use

There is a cluster of commercial uses at the juncture of Grant Line Road and the Southern Pacific Railroad tracks surrounded by single unit residential development. Several agriculturally related industrial uses are located along the tracks.

#### Major Planning Considerations

- 1) No significant growth is anticipated for the area based upon the agricultural character of the community and lack of public water and sewer systems.

FIGURE 71a	
EXISTING LAND USE ACREAGES - 1974	
(in net acres)	
Residential	28
Commercial	5
Industrial	2
Recreation	9
Public/Quasi Public	13
Roads & Streets	14
TOTAL DEVELOPED	71
VACANT	2
AGRICULTURE	7
TOTAL 1995 PLAN AREA	80

FIGURE 71b	
PLANNED LAND USE ACREAGES - 1995	
(in gross acres)	
RESIDENTIAL	
Rural Center	35
COMMERCIAL	
Rural Center	20
INDUSTRIAL	
Limited	15
General	--
RECREATION	--
EDUCATION	10
GOV'T/INSTITUTIONAL	--
TOTAL GROSS ACRES	80

## The Rural Center of

### VERNALIS

#### Public Facilities and Services

Sewage disposal and water supply is by septic tanks and individual wells. There are no community services. Children attend elementary school in New Jerusalem and high school in Tracy. The district fire station is located in New Jerusalem, about 4+ miles to the north.

#### Existing Land Use

There is a single crossroads commercial use and two industrial uses. Those few homes in the area are older single units.

#### Major Planning Considerations

- 1) Vernalis was originally designated a rural center in 1972 by an amendment to the General Plan. The designation is continued to recognize the industrial uses.
- 2) Area for additional residential, commercial, and industrial growth is provided; however, no community services are planned.

FIGURE 72a

EXISTING LAND USE ACREAGES - 1974  
(in net acres)

Residential	12
Commercial	1
Industrial	14
Recreation	--
Public/Quasi Public	--
Roads & Streets	5
TOTAL DEVELOPED	<u>32</u>
VACANT	7
AGRICULTURE	76
TOTAL 1995 PLAN AREA	<u>115</u>

FIGURE 72b

PLANNED LAND USE ACREAGES - 1995  
(in gross acres)

RESIDENTIAL	
Rural Center	45
COMMERCIAL	
Rural Center	20
INDUSTRIAL	
Limited	--
General	50
RECREATION	--
EDUCATION	--
GOV'T/INSTITUTIONAL	--
TOTAL GROSS ACRES	<u>115</u>



## Rural Residential Areas

### NEW JERUSALEM (Durham Ferry Road and Route 33)

#### Planning Considerations

- 1) Residential development consists of single units on large lots. Commercial development is presently limited to one use. There is a private agricultural airstrip and associated activities between Route 33 and Koster Road.
- 2) New Jerusalem is a result of cumulative land divisions around the elementary school and a Tracy Rural District fire station, which continue as an impetus to residential development. Parcel sizes are such that additional divisions are possible. The flying strip in the present location may present a hazard to future residential development.
- 3) SEE Figure 39 on page 106 for analysis of individual rural residential areas.

### WILLIMAR ESTATES (Bird Road and Grant Line Road)

#### Planning Considerations

- 1) The area includes an old subdivision which has never been developed. It is served by the elementary school and fire district located in Banta.
- 2) SEE figure 39 on page 106 for analysis of individual rural residential areas.

### VALPICO (Valpico Road and MacArthur Drive)

#### Planning Considerations

- 1) The area includes several older subdivisions, one with a community water system, as well as numerous other residences which have resulted from more recent land divisions.
- 2) The area is served by Jefferson elementary school.
- 3) Although in close proximity to the City of Tracy, there are requests for establishment of agricultural preserves as well as several existing contracts in the intervening area.
- 4) SEE Figure 39 on page 106 for analysis of individual rural residential areas.

MOUNTAIN VIEW  
(Mountain View Road and Corral Hollow Road)

Planning Considerations

- 1) The area includes an old subdivision along Mountain View and a newer, still-developing subdivision on Midway Drive.
- 2) Although in close proximity to the City of Tracy, there are requests for establishment of agricultural preserves and contracts in the intervening area.
- 3) SEE Figure 39 on page 106 for analysis of individual rural residential areas.

LAMMERSVILLE  
(Von Sosten Road and Hansen Road)

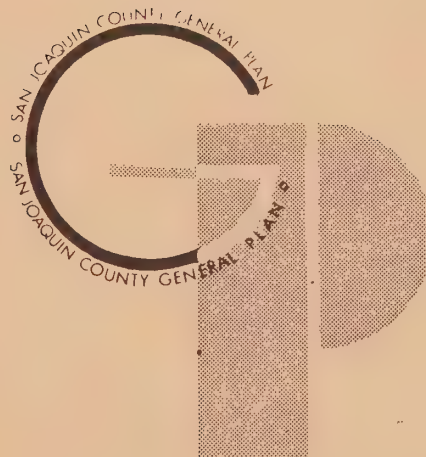
Planning Considerations

- 1) The area includes an older subdivision as well as undeveloped land south to Interstate Route 205 where land divisions are occurring.
- 2) Lammersville elementary school is nearby, as is a Tracy Rural Fire District station.
- 3) SEE Figure 39 on page 106 for analysis of individual rural residential areas.

CHRISMAN  
(Chrisman Road and Interstate Route 580)

Planning Considerations

- 1) The area is limited to a parcel proposed for development in conjunction with the nearby Tracy Golf and Country Club.
- 2) The foothills of the coast ranges begin abruptly south of Route 580, and soils are mainly Class IV.
- 3) Jefferson elementary school and the nearest Tracy Rural Fire District station are both about five miles north on Linne Road.
- 4) SEE Figure 39 on page 106 for analysis of individual rural residential areas.



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In the text, numbers in parenthesis ( ) indicate that a specific reference is cited. These numbers correspond to the numbers in the bibliography for that chapter. For example:

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## APPENDIX





## SUMMARY OF THE PLAN REVISION PROCESS

### Land Use/Circulation Element of the San Joaquin County General Plan to 1995

#### INITIATION OF THE REVISION

The Board of Supervisors initiated the revision of the General Plan in 1972. A prior rezoning controversy had cast doubt on the adequacy of the plan with request to locations and amounts of land designated for future industrial development.<sup>1</sup> Although the General Plan to 1990 had been adopted in May, 1969, it was largely based on the first County plan, adopted in 1963. Since then the 1970 Census had been taken, an environmental analysis of the County was in progress, and a land use data system was being developed as part of a city/county Community Development Program. Therefore, new information would soon be available on which to base a plan revision. It was decided to begin a total review of the existing plan at the same time as new data was being collected and analyzed.

During the course of the revision, there were changes in State legislation which affected the plan update. First, a number of new plan elements became required. Although staff time was taken from the revision of the Land Use/Circulation Element, the work done on the required Open Space/Conservation Element was useful in the revision. Other State legislative actions had a cumulative effect of making the Plan a firm policy regarding development rather than just a guide. The revision was taken more seriously because the plan now was to be much more than a "sit-on on the shelf," generalized concept of a future county. It was something which would have daily implications; the rezoning which precipitated the revision could no longer have occurred under the new law requiring that zoning be consistent with the plan.

#### COMPONENTS OF THE REVISION PROCESS

The revision of the element involved the efforts of the planning staff, the citizens advisory committee, the Planning Commission, various governmental agencies, and the general public.

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<sup>1</sup>The question was whether or not to zone an agricultural area within a city's sphere of influence to a general manufacturing zone. Neither the County's General Plan to 1990 nor the city's plan designated the area for industrial development. The Board felt that the industrial development was appropriate in that location, and that the plan needed to be revised.

## 1. Staff Work

Several planning studies which were in progress at the time the revision started subsequently provided information for use in the new plan. The most important were the following:

- Community Development Program, which included socio-economic studies of the County
- County-wide information system, including a parcel-by-parcel breakdown of land use
- transportation planning studies, with county and city involvement through the San Joaquin County Council of Governments
- population and housing projections, resulting from the Community Development Program and the Transportation Planning studies
- base map preparation, a series of maps, County-wide, at a 1" to 400' scale showing all roads, waterways and existing property lines
- various elements of the general plan.

Although several of these studies are not yet complete, they were helpful, and in fact necessary, for the plan revision. When land use data was not yet available, areas had to be field checked to collect necessary information.

During the course of the revision, the staff analyzed the available information and prepared reports, graphic interpretations, and recommendations for the citizens committee, the Planning Commission, and the general public. Special studies were done as deemed necessary by the staff, the committee, or the commission. As a result of the revision program the following by-products were prepared: 100+ display maps (can be used at subsequent public meetings), various technical reports (including analysis of specific land uses and a report on package sewage treatment plants), and development of a rural planning program (which was adopted by the Planning Commission and the Board of Supervisors and which will continue after the adoption of the general plan).

## 2. Citizens Committee

The Board of Supervisors appointed a citizens committee, composed of 29 members, most of whom had previously expressed interest in urban development within the County. Included on the committee were representatives of each of the city planning commissions.

The citizens committee received and discussed background material and reviewed the existing plan for more than two years. During this time, the various planning issues to be considered in the revision emerged. Policy revision and development followed, with maps of land use proposals resulting from a combination of factors, including existing land use, projections, development trends, known community desires, the existing plan, existing zoning, service district boundaries, circulation needs, etc. The Citizens Advisory Committee held more than three dozen meetings prior to the area meetings.

### 3. Planning Commission

The Planning Commission held work sessions to review changes which had occurred in the County since the adoption of the last revised plan in 1969. Discussions included concern over the recent legislation, which made the plan a firm policy document. There was a desire to produce a valid revision to the plan so that it would form a strong basis for subsequent actions.

The policies as formulated by the citizens committee were reviewed at the Planning Commission work sessions, with the commission making some changes before including the policies in the proposed plan. All changes were reviewed by the citizens committee. Staff suggested refinements in the policies or new policies when the need for them became apparent.

The maps were discussed by the Planning Commission in light of the policies. Concern was expressed over the fact that some areas may have been zoned and money invested on the basis of that zoning, but the existing plan did not indicate the type of land uses permitted by the zoning. It was recognized that some zoning was premature and it was unlikely that the land would be needed for development during the planning period; in this situation the general plan would not reflect the zoning. The Commission was acutely aware that once the new plan was adopted, many areas would have to be rezoned to conform with the new plan. In the study of each individual area and in making the decision on what proposal to set for public hearing, the existing zoning was carefully reviewed along with the existing land use, projected needs, and other factors. Any changes to the maps were returned to the citizens committee for discussion prior to the area meetings.

### 4. Area Meetings

Area meetings throughout the County were held the latter part of 1974 and the first part of 1975. The planning staff presented each community with the initial proposal for its area. These meetings were generally held at a local school or other meeting place.

In order to receive community participation, a great deal of time was spent on publicity measures. These included: press releases to local newspapers; posting of notices on utility poles and in businesses throughout the area; notification of businesses, clubs, organizations and individuals known to be involved in community activities.<sup>1,2</sup>

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<sup>1</sup>Names of interested individuals had been collected for several months from planning commissioners, supervisors, inquiries at the planning department, sign-ups at various meetings and at the County Fair.

<sup>2</sup>In the summer of 1974, a booth consisting of a display and a slide show on the General Plan was set up at the County Fair and at the Lodi Grape Festival. The purpose of the booth was to attract attention to the plan, the fact it was being revised, and the importance of the revision. Planners were available to answer questions about the plan and collect names of those interested in being involved in the revision process or wanting to receive information on specific areas.



At most meetings the following display maps were available for examination: existing plan, existing land use, existing zoning, boundaries of governmental jurisdictions or special districts, areas of possible flooding, proposed plan. The staff presentation included an explanation of the planning process, the purpose and use of a general plan, the need for revision, the projections for the area, the existing situation as shown in the maps, the policies being proposed for the revised plan, the proposed plan map for the area, and the use of the policies in conjunction with the map. In each meeting it was emphasized that the proposals were tentative and comments would be taken back to the citizens committee and the planning commission before a plan was set for public hearing, at which time changes could still be made. Questions from those in attendance were answered and comments noted. As suggestions for changes or additions to the policies or maps were made, the general feeling of the community was called for and notes were made of all proposals which appeared to have wide support.

#### 5. Joint Citizens Committee/Planning Commission Meetings

Following the area meetings the Citizens Committee and the Planning Commission met to receive reports of the area meetings. Proposed changes to the maps were discussed and plans were then set for public hearings. Since considerable public interest had been generated by the area meetings, these committee/commission meetings were often attended by those who desired changes in the maps.

#### 6. Coordination with Cities and Other Agencies

Throughout the revision process there was consultation and coordination with other agencies, both within the County and outside of the County. Particular assistance was provided by various County departments, the Council of Governments, and the city planning departments.

Prior to preparation of the review draft of the plan, presentations were made to the city planning commissions. The objective of the presentation was two-fold: 1) to inform them of the proposals which would be going to public hearing, and 2) to elicit their comments on the proposal for their area.

Prior to the public hearings on the plan, a presentation was made to the Council of Governments.

#### 7. Preparation and Distribution of the Draft Publications

The staff prepared a brochure with a compilation of the proposed policies. This brochure and the County-wide plan map received the widest distribution (more than 1000 were mailed initially, with a total of 2000 printed). All those who attended the area meetings and requested the policies received copies, as well as others who subsequently requested them plus public agencies, officials and organizations.

The text of the plan and the area maps were distributed with the policies and the county map for technical review (250-300 copies). The complete packet is available at the Planning Department and at all public libraries in the County. Copies of any area map are available at the Planning Department, 1810 E. Hazelton, Stockton, California. The staff is available to present the plan to groups.



## 8. Environmental Assessment

The Environmental Impact Report has been included with the plan document and was circulated for review and comment by agencies, officials, organizations, and the general public.

Written comments were incorporated into the final EIR, as were oral comments, which were received by the County's Environmental Review Committee at a public hearing.<sup>1</sup> The EIR was reviewed and acted upon by the Planning Commission and the Board of Supervisors at the time of the public hearings on the plan, in conformance with the County's Environmental Guidelines.

## 9. Public Hearing before the Planning Commission

The Planning Commission held a series of 8 public hearings through the Fall of 1975.<sup>1</sup> The Commission received comments on all aspects of the plan at that time. In one instance the public hearing did have to be continued over another meeting night in order to adequately consider the plan. After the closing of the public hearings, the Commission discussed and decided on the plan which would be submitted to the Board of Supervisors with a recommendation for adoption.

## 10. Involvement of the Board of Supervisors

The Board of Supervisors held a day-long workshop on the plan background prior to public hearings on the plan proposals.

## 11. Public Hearing before the Board of Supervisors

Upon receipt of the plan recommended by the Planning Commission, the Board of Supervisors set the plan for public hearing. The Supervisors received comments on the plan during the public hearings,<sup>1</sup> which continued through March of 1976. After the closing of the public hearings on April 8, the Supervisors discussed the plan as submitted by the Planning Commission. When the Board wished to make changes in the plan as submitted, they did, in conformance with Section 65366 of the State Government Code, refer it back to the Planning Commission before taking final action.

## 12. Provisions for Monitoring, Review and Update

The plan is continually monitored in terms of its assumptions and the content and implication of its policies. Should problems with the plan become evident, as many as three amendments per year can be made.

New information will be evaluated as received and refinements will be made in the plan as new elements and studies are completed. A thorough analysis and reappraisal will be made in approximately five years with the overall plan being updated at that time.

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<sup>1</sup>In conformance with legal requirements, each public hearing was advertised "in a newspaper of general circulation." As expected, it happened that local newspapers published stories relating to the public hearings. News releases were prepared and submitted to the papers.





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